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THE NATIONAL ENVIRONMENTAL COMMITTEE:
A PROPOSAL TO RELIEVE REGULATORY GRIDLOCK
AT FEDERAL FACILITY SUPERFUND SITES

A Thesis
Presented To

The Judge Advocate General's School, United States Army

The opinions and conclusions expressed herein are those of the author and do not necessarily represent the views of either The Judge Advocate General's School, the United States Army, or any other governmental agency.

by Major Stuart W. Risch, JA
United States Army

44TH JUDGE ADVOCATE OFFICER GRADUATE COURSE

April 1996

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THE NATIONAL ENVIRONMENTAL COMMITTEE:
A PROPOSAL TO RELIEVE REGULATORY GRIDLOCK
AT FEDERAL FACILITY SUPERFUND SITES

MAJOR STUART W. RISCH*

I. The Problem and a Solution

A. *The Problem*

Federal agencies¹ are engaged in a fierce battle² with an

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¹ This article focuses primarily on the Department of Defense (DOD) and the Department of Energy (DOE). See *infra* note 42 (discussing the various federal agencies' environmental restoration efforts and concerns).

² The environmental mission ahead for the U.S. Dept. of Defense will be as tough as any military campaign in its history. The unknowns of site contamination, political fallout from base closure and sharpened budget knives and changed priorities on Capitol Hill are all combining to make the military's war on wastes a long and

unusual opponent--the hazardous wastes³ that they have generated and improperly disposed for decades at their own facilities across the nation.⁴ Since the mid-1900s, these

painful one.

Debra K. Rubin et al., *Base Cleanups Face New Era of Cuts and Commitments*, 234 ENGINEERING NEWS-REC. 36, 36 (Mar. 6, 1995).

"The Pentagon has stated that the problem of cleaning up toxic and hazardous waste sites at military facilities is its 'largest challenge.'" *Department of Defense Env'tl. Programs: Hearings Before the Readiness Subcomm., the Env'tl. Restoration Panel, and the Dep't of Energy Defense Nuclear Facilities Panel of the House Comm. on Armed Services*, 102d Cong., 1st Sess. 194 (1991) [hereinafter *House Armed Services Comm. 1991 Hearings*] (testimony of Thomas E. Baca, Deputy Assistant Secretary of Defense (Env't)), quoted in Richard A. Wegman & Harold G. Bailey, Jr., *The Challenge of Cleaning Up Military Wastes When U.S. Bases Are Closed*, 21 ECOLOGY L. Q. 865, 868 (1994).

³ See 42 U.S.C. § 6903(5) (defining the term "hazardous waste"); *id.* § 9601(14) (defining the term "hazardous substance"); see also *infra* notes 79, 136 (detailed definitions and discussion of the terms). I will use the terms "hazardous waste," "hazardous substance," and "toxic waste" interchangeably.

⁴ See Adam Babich, *Our Federalism, Our Hazardous Waste, and Our Good Fortune*, 54 MD. L. REV. 1516, 1522-23 & nn.27-31 (1994) [hereinafter *Federalism and Hazardous Waste*] ("[T]he most dangerous hazardous waste sites in the United States are those that the federal government created itself."); Kyle Bettigole, *Defending Against Defense: Civil Resistance, Necessity and the United States Military's Toxic Legacy*, 21 B.C. ENVTL. AFF. L. REV. 667, 667-68 & nn.2-6 (1994) ("the Departments of Defense (DOD) and Energy (DOE) have 'cast a chemical plague over our country,' creating a toxic legacy for the next several generations.") (citations omitted).

See also SETH SHULMAN, *THE THREAT AT HOME: CONFRONTING THE TOXIC LEGACY OF THE U.S. MILITARY* (1992) (describing environmental conditions within the DOD); G.D. Baasch et al., *Integrating Waste Minimization and Recycling in the Hanford Cleanup Mission*, 4 FED. FACILITIES ENVTL. J. 93, 93 (Spring 1993) (discussing the Hanford Nuclear Reservation, the worst of the DOE's 17 major nuclear weapons research and production facilities that are replete with radioactive and toxic wastes.

agencies have jeopardized human health and safety and endangered the environment⁵ by discarding toxic wastes and materials at thousands of federal facility sites in every state.⁶ Consequently, many of these facilities⁷ are "laced with almost every imaginable contaminant--toxic and hazardous

The article refers to the Hanford site as "home to one of the largest and most complex waste cleanup projects the world has ever seen.").

⁵ Bettigole, *supra* note 4, at 670 & nn.28 (citing CONGRESSIONAL BUDGET OFFICE, FEDERAL LIABILITIES UNDER HAZARDOUS WASTE LAWS, S. Doc. No. 95, 101st Cong., 2d Sess. 13 (1990)) (indicating that "chronic illnesses such as cancer, brain damage, nerve and digestive disorders, and reproductive problems are among the many health dangers created by direct contact with hazardous substances, or indirect exposure to contaminated air or drinking water"). See Frederick R. Anderson, *Negotiation and Informal Agency Action: The Case of Superfund*, 1985 DUKE L.J. 261, 265 (1985).

⁶ Bettigole, *supra* note 4, at 667 & n.4 (citing Seth Shulman, *Operation Restore Earth: The U.S. Military Gets Ready to Clean Up After the Cold War*, E. MAG., Mar.-Apr. 1993, at 37); GENERAL ACCT. OFF., PUB. NO. NSIAD-94-133, ENVIRONMENTAL CLEANUP: TOO MANY HIGH PRIORITY SITES IMPEDE DOD'S PROGRAM 4-5 (1994) (indicating that every state in the country has at least one potentially contaminated site).

⁷ The term "facility" is broadly defined as "(A) any building, structure, installation, equipment, pipe, or pipeline . . . well, pit, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located." 42 U.S.C. § 9601(9). "Federal facilities" are defined as "facilities which are owned or operated by a department, agency, or instrumentality of the United States." *Id.* § 9620(a)(2). These definitions include areas contiguous to federal facilities where hazardous substances may have extended beyond the boundaries of the facility. 40 C.F.R. § 260.10. The term federal facility, as used in this article, incorporates the term "federal agencies."

wastes, fuels, solvents, and unexploded ordnance."⁸

Accordingly, these agencies have had to adopt new strategies and fundamentally change long-standing practices to promote and protect the environment.⁹ They collectively have spent tens of billions of dollars to date in an attempt to clean up their environmental messes.¹⁰ Estimates predict that the final clean-up costs could run into the *trillions*.¹¹ These diligent efforts have allowed the agencies to gain significant

⁸ Ken Miller, *Pentagon Says Environmental Mess Will Cost \$25 Billion*, GANNETT NEWS SERVICE, May 13, 1993, at 1 (quoting the Deputy Under Secretary of Defense (Environmental Security) (DUSD(ES)), Sherri Wasserman Goodman, in testimony before the House Armed Services subcommittee).

⁹ See, e.g., DEPARTMENT OF DEFENSE, DEFENSE ENVIRONMENTAL CLEANUP PROGRAM ANNUAL REPORT TO CONGRESS FOR FISCAL YEAR 1993, at 1-4 (Mar. 31, 1994) [hereinafter DERP 1993 REPORT] (acknowledging that "new goals and strategies must be established in each of the program areas--cleanup, compliance, conservation, pollution prevention, and technology."); UNITED STATES ARMY, ENVIRONMENTAL STRATEGY INTO THE 21ST CENTURY (1992). See also *infra* notes 235-37 and accompanying text.

¹⁰ The DOD alone has spent at least \$7 billion through fiscal year (FY) 1994 on all phases of the clean-up process at almost 22,000 sites, and the DOE's spending dwarfs that of all other agencies combined. See DEPARTMENT OF DEFENSE, DEFENSE ENVIRONMENTAL RESTORATION PROGRAM ANNUAL REPORT TO CONGRESS FOR FISCAL YEAR 1994, at B6-1 (Mar. 31, 1995) [hereinafter DERP 1994 REPORT]; but see Rubin, *supra* note 2, at 36 (indicating that a recent Congressional Budget Office (CBO) report placed the DOD's costs at almost \$11 billion).

¹¹ See U.S. GENERAL ACCOUNTING OFFICE, GAO/RCED-95-1, REPORT TO THE SECRETARY OF ENERGY, DEPARTMENT OF ENERGY, NATIONAL PRIORITIES NEEDED FOR MEETING ENVIRONMENTAL AGREEMENTS 10 (1995) [hereinafter NATIONAL PRIORITIES] (indicating that the DOE alone will likely spend as much as \$1 trillion to clean up over 7000 contaminated sites).

ground, yet much work remains.¹²

Federal agencies have been battling to rid their facilities of this toxic menace since the mid to late 1970s. It was only then that the dangers posed by hazardous wastes at both private and federal facilities across the nation first vaulted to the forefront of national attention.¹³

As a result of the nation's increased concern over this threat to the environment, Congress responded by enacting a wave of environmental legislation in the late 1970s¹⁴ and early 1980s. It passed the Resource Conservation and Recovery Act (RCRA)¹⁵ in 1976 and the Comprehensive Environmental Response,

¹² "[T]he military still has far to go before it resolves the most difficult environmental problem it faces: the thousands of sites on DOD installations that are contaminated and in need of cleanup because of past disposal, spills, and leaks of hazardous materials." Martin Calhoun, *The Big Green Military Machine: Department of Defense*, BUS. & SOC'Y REV., Jan. 1995, at 21, 22.

¹³ The threat posed by improperly disposed hazardous wastes was thrust into the limelight in 1980 with the discovery of the Love Canal near Niagara Falls, New York, and similar toxic waste dumpsites nationwide posing deadly risks to area residents. See SENATE COMM. ON ENVTL. & PUB. WORKS, ENVTL. EMERGENCY RESPONSE ACT, S. REP. NO. 848, 96th Cong., 2d Sess. 7, 8 (1980) [hereinafter S. REP. NO. 848]; see also *infra* notes 100-06 and accompanying text (detailed discussion of various hazardous waste sites).

¹⁴ "Throughout the 1970s, the United States established a world-class track record for enacting innovative environmental laws." Peter B. Prestley, *The Future of Superfund*, 79 A.B.A. J. 62, 62-63 (Aug. 1993).

¹⁵ Pub. L. No. 94-580, 90 Stat. 2795 (1976) (codified as amended in scattered sections of 42 U.S.C. §§ 6901-6986

Compensation and Liability Act (CERCLA)¹⁶ in 1980 (commonly referred to as the "Superfund"¹⁷). Together, the two statutes inspired great expectations, but in reality have demonstrated limited success in combatting toxic wastes.¹⁸ The statutes' ambiguity, substantive omissions, and piecemeal application

(1988)), amended by Solid Waste Disposal Act Amendments of 1980, Pub. L. No. 96-482, 94 Stat. 2334 (1980) (current version at 42 U.S.C. §§ 6901-6992k (1988)). See *infra* Appendix B (list containing commonly used acronyms, such as "RCRA," in the environmental law arena).

¹⁶ Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9657 (1988)), reauthorized and amended in part by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (codified in scattered sections of 26 U.S.C. and 42 U.S.C. §§ 9601-9675 (1988)). See also Omnibus Reconciliation Act of 1990, Pub. L. No. 101-508, 104 Stat. 1388. Frequently, the CERCLA is referenced under the paragraph of the original legislation. Those paragraph numbers run from 100 to 175 and correspond to 42 U.S.C. §§ 9601-9675.

¹⁷ The CERCLA initially created a \$1.6 billion fund for use in responding to releases or threatened releases of hazardous substances at any site nationwide, hence the nickname "Superfund." See *infra* notes 131-35 and accompanying text (discussing the fund in greater detail).

¹⁸ See R.S. Hanash, *Superfund Reform*, 6 FED. FACILITIES ENVTL. J. 115, 115 (Winter 1995/96) ("After 15 years, the Superfund program is often described as one that has 'cost billions, cleaned up little, and satisfied no one,' and Congress is still debating over how to fix its major deficiencies."); *Federalism and Hazardous Waste*, *supra* note 4, at 1520 ("the Superfund program for cleanup of hazardous substances is now notorious for fostering too much litigation and too little actual cleanup").

But see *id.* at 1521-22 (indicating a belief that "both statutes have dramatically improved environmental protection"); n.26 (citing Babich, *Understanding the New Era in Environmental Law*, 41 S.C. L. REV. 733, 755-58 (1990) (the CERCLA and RCRA have been successful in increasing waste minimization and voluntary cleanup); 42 U.S.C. §§ 6973, 9606 (the statutes also allow quick responses to threats to public health)).

have led to claims that the Superfund is "broken," and that the pace of cleanups at toxic waste sites is too slow,¹⁹ the costs exorbitant.²⁰

¹⁹ The average amount of time from the discovery of a contaminated site through the cleanup has ranged from 12-15 years. Since the Superfund's enactment in 1980, only 346 sites have been cleaned. Gary Lee, *Superfund Law Revisions Pushed--GOP Tries to Rewrite Hazardous Waste-Site Cleanup Regulations*, WASH. POST, Oct. 15, 1995, at A18. "[I]t has become apparent that cleaning up the environment is a long-term project that some experts believe will take as long as 50 years." Prestley, *supra* note 14, at 62.

The pace of cleanups at federal facilities is not much better. The DOD reported in March, 1995, that 21,425 contaminated sites existed on 1769 installations, and that it had completed cleanups at only 810 sites. The remainder of the sites were still mired in the investigation/assessment/design phases of the clean-up process. DERP 1994 REPORT, *supra* note 10, at B6-1.

Studies indicate that the average amount of time spent studying sites, before cleanups even begin, is 14 years. CONGRESSIONAL BUDGET OFFICE, CLEANING UP DEFENSE INSTALLATIONS: ISSUES AND OPTIONS 1, 2 (1995) [hereinafter ISSUES & OPTIONS]. Such extensive periods of assessments, studies, inspections, and reports have caused the DOD's own environmental chief to admit that the clean-up process is afflicted with "paralysis by analysis." Calhoun, *supra* note 12, at 23 (quoting Deputy Under Secretary of Defense (Environmental Security) (DUSD(ES)) Sherri W. Goodman, referring to the situation in which "the bulk of the cleanup program to date has been devoted to assessing contamination rather than cleaning it up").

²⁰ The total estimated bill for cleaning up contaminated sites nationwide has varied from year to year. Presently, the figures are staggering. Estimates on the high end run from \$420 billion to figures in the trillions. See Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L. REV. 2039, 2068 (1993) (citing *U.S. Hazwaste Cleanup Costs Could Hit \$420 Billion Over 20-30 Years*, HAZARDOUS WASTE BUS., July 1, 1992, at 3); Ronan, *A Clean Sweep on Cleanup*, RECORDER, Sept. 30, 1992, at 1 (\$750 billion); Martin L. Calhoun, *Cleaning Up the Military's Toxic Legacy*, USA TODAY, Sept. 1995, at 60, 64 (Magazine, vol. 124, no. 2604) (indicating that "independent estimates of the price tag for cleaning up military bases range to \$1 trillion." (emphasis added)).

Yet these criticisms have been heard time and again. Many before me have written on the ills of the Superfund program and recommended specific revisions to the statutes.²¹ I will

The average cost of cleaning up a Superfund site has been placed between \$25 and \$30 million. Prestley, *supra* note 14, at 65; *Superfund: Industry Coalition Study Urges Greater Role for Cost Consideration in Remedy Selections*, 20 Env't Rep. (BNA) 856, 856 (Sept. 22, 1989) (industry coalition estimate of \$25 million per site).

Critics of the Superfund program have alternatively attacked the high administrative and legal costs associated with the cleanups. See, e.g., Prestley, *supra* note 14, at 65. "The substantial transaction costs that have marked the Superfund process to date also have been the target of strident criticism." *Id.* See also *Overhaul Is Proposed for Law Governing Cleanups of Hazardous Waste Sites*, WASH. POST, Feb. 4, 1994, at A17 (indicating that even EPA Administrator Carol Browner believes that the Superfund needs to be "fixed." She is concerned that "too much money is going to the lawyers and not enough to cleanups.").

Federal facilities will bear the lion's share of the clean-up costs at Superfund sites. Current DOD estimates place the total cost of cleanups at around \$30 billion. Hanash, *supra* note 18, at 115. However, the DOD Inspector General (IG) reports that the total DOD bill will range from \$100-\$200 billion. Wegman & Bailey, *supra* note 2, at 877. Estimates place the DOE's final bill near the \$300 billion mark. See also *infra* note 42 (discussing comparative costs for each federal agency).

²¹ See, e.g., Earl K. Madsen et al., *Superfund Reauthorization: An Opportunity to Rectify Major Problems*, 24 Env't Rep. (BNA) 1020 (Oct. 1, 1993) (recommending that Congress clarify numerous provisions of the CERCLA and reexamine others). The article specifically recommends that Congress define response costs; require states to establish the need for ARARs (clean-up standards); allow pre-enforcement review of EPA decisions; and encourage *de minimis* settlements. See also Prestley, *supra* note 14, at 62 (identifying the need for more cost-effective ways of apportioning clean-up responsibility, streamlining current clean-up methods to produce more timely cleanups, better priority setting, increasing the Superfund financing pool, and reassessing the Superfund's retroactive liability provisions). These two articles are representative of hundreds calling for various

not fall into the same category. Although these specific areas of reform are a vitally important part of the Superfund debate,²² this article focuses on the administrative body that implements all of the requirements--imposed by a variety of federal, state, and local environmental laws--on federal facilities appearing on the National Priorities List (NPL).²³

Presently, the possibility exists that both the RCRA and CERCLA will govern hazardous waste cleanups²⁴ at federal

changes to the CERCLA.

²² Part VI contains a discussion of specific reforms within the context of my proposal.

²³ The NPL is a national roster of the most heavily contaminated sites that pose the greatest risk to human health and the environment. The list is located at 40 C.F.R. § 300.425(c)(1). The Environmental Protection Agency (EPA) ranks sites on the list by the degree of hazard posed. The agency uses the Hazard Ranking System (HRS) to identify those sites that must be listed--that is, those sites that score 28.50 or higher. See 40 C.F.R. pt. 300. app. A. The EPA published the first list in 1981, and it contained 115 entries. *Who's Who on the List*, 7 E.P.A. J. Nov.-Dec. 1981, at 16-17. See 47 Fed. Reg. 58,476, 58,479 (1982). Congress requires the EPA to update the list annually. 42 U.S.C. § 9605(a)(8)(B). This ensures that the most heavily contaminated sites requiring top priority appear on the list.

²⁴ See Melinda R. Kassen, *The Inadequacies of Congressional Attempts to Legislate Federal Facility Compliance with Environmental Requirements*, 54 Md. L. REV. 1475, 1475 n.4 (1994). Ms. Kassen indicates that "[g]iven the magnitude and complexity of the contamination at these [federal] facilities, a complete 'clean up' at these sites is not possible. However, because the use of this phrase has become endemic in this field, it appears throughout the article." I adopt her line of thinking on this particular issue.

See also Bill Turque & John McCormick, *The Military's Toxic Legacy*, NEWSWEEK, Aug. 6, 1990, at 20, 24 (stating that

facility NPL sites. Congress enacted the RCRA to regulate the future generation, treatment, and disposal of hazardous wastes.²⁵ It created the CERCLA to confront those wastes disposed of prior to the RCRA's enactment.²⁶ Typically, the Environmental Protection Agency (EPA) enforces the CERCLA, but delegates authority to enforce the RCRA to the states. However, when both statutes simultaneously apply to a federal facility cleanup--the "RCRA/CERCLA interface"--the statutory overlap creates a regulatory overlap.²⁷ Disputes erupt between the states, federal facilities, and the EPA over control of the cleanup. A duplication of effort occurs because federal facilities must evaluate sites under both statutes. Conflicts arise over the appropriate clean-up standards and

"[t]he tug of war between environmental concerns may grow more tense, partly because the term cleanup is a misnomer. While the worst sites might eventually be suitable for limited surface users, they will never be completely safe. Even the military's success stories can leave frightening legacies.").

²⁵ See *infra* notes 76-99 and accompanying text (discussing the RCRA).

²⁶ See *infra* notes 121-79 and accompanying text (discussing the CERCLA). Congress envisioned that the two statutes would comprehensively govern hazardous wastes. Hilary Noskin et al., *When Does RCRA Apply to a CERCLA Site?*, 3 FED. FACILITIES ENVTL. J. 173, 173 (Summer 1992).

²⁷ Federal facilities must often "comply at the same time with two different statutes that employ distinct regulatory mechanisms, goals, and approaches." Wegman & Bailey, *supra* note 2, at 900-01 (citations omitted). See also Richard G. Stoll, *RCRA Versus CERCLA: Choice and Overlap*, 778 A.L.I.-A.B.A. 141, 152 (1992).

remedy.²⁸ In short, "regulatory gridlock" develops.²⁹

This gridlock arises out of the two statutes' failure to address important issues. Who controls the cleanup? Who sets the clean-up standards? Who selects the clean-up remedy? Who pays the staggering clean-up costs? The stakes for federal facilities, and our country, are enormous.

I have identified four potential solutions to relieve the gridlock:

- (1) Grant complete control of the clean-up process at federal facility NPL sites to the states;³⁰

²⁸ Ultimately, federal facility cleanups experience a concomitant increase in cost, delays, and frustration. See *supra* notes 19-20.

²⁹ See *infra* notes 304-429 and accompanying text (analyzing the RCRA/CERCLA interface and related issues). This gridlock grinds the pace of cleanups to a "screeching halt." Two excellent examples are found in the cleanups at the Army's Twin Cities Army Ammunition Plant (TCAAP) in Minnesota, and the Army's Rocky Mountain Arsenal in Colorado. The TCAAP has been involved in the clean-up process (assessment through actual cleanup) since 1981, and the anticipated date of completion is not until the year 2000. The process has been underway at the Rocky Mountain Arsenal for decades, and there is reason to believe that it will never be completed. Wegman & Bailey, *supra* note 2, at 875-76; see also *House Armed Services Comm. 1991 Hearings*, *supra* note 2, at 287-88 (providing examples where the overlap caused significant delays in the clean-up process).

³⁰ See *infra* notes 434-49 and accompanying text (analyzing state control).

(2) Grant complete control of the clean-up process at these sites to the EPA;³¹

(3) Maintain the status quo, mandating the use of tri-party interagency agreements to resolve conflicts between the regulatory authorities;³² or

(4) Create a national administrative committee, granting it *complete* authority over all federal facility NPL sites.

An analysis of these potential solutions reveals that the first three do not present a workable approach to resolving the problems created by the interface of the two statutes. The fourth alternative, however, provides a unique opportunity to remove the regulatory gridlock and to address additional problems that currently plague the clean-up process at federal facilities.

B. The Proposed Solution

Accordingly, I recommend the creation of a National

³¹ See *infra* notes 450-63 and accompanying text (analyzing EPA control).

³² See *infra* notes 464-77 and accompanying text (analyzing the status quo).

Environmental Committee (NEC),³³ to function in a manner similar to the Federal Reserve Board.³⁴ This committee would assume responsibility for, and authority over, all federal facility NPL sites.³⁵ The NEC will consist of twelve members

³³ See *infra* Appendix A (proposed legislation establishing the NEC); notes 478-81 and accompanying text. The idea for a small, centralized administrative group as a solution, albeit to the related problem of risk regulation, did not originate with me. See STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE--TOWARD EFFECTIVE RISK REGULATION* (1993). Justice Breyer proposes the creation of a new administrative entity to develop a "coherent risk regulating system . . . for use in several different risk-related programs." *Id.* at 59-60. Justice Breyer clearly articulates his recommendation as follows:

[M]y proposal is for a specific kind of group: mission-oriented, seeking to bring a degree of uniformity and rationality to decision making in highly technical areas, with broad authority, somewhat independent, and with significant prestige. Such a group would make general and government-wide the rationalizing efforts in which EPA is currently engaged.

Id. at 61. I have borrowed Justice Breyer's concept of a relatively small, administrative entity that is insulated, prestigious, and powerful. However, I apply it only to federal facility NPL cleanups. The unique and positive attributes of such a group will provide immediate benefits to the overall clean-up process at these sites.

³⁴ See *infra* notes 482-92 and accompanying text (providing a detailed discussion of the creation of this committee, comparing and contrasting it with the Federal Reserve Board).

³⁵ Why just federal facility NPL sites? First and foremost, although the number of federal facility NPL sites represents only about 10% of the total number of NPL sites, the cost of remediating this 10% is significantly greater than the cost of remediating the remaining sites. This is primarily attributable to the type and amount of contamination at these sites. One commentator accurately noted that "the small numbers of federal facilities clearly skew their true pollution significance." Stan Millan, *Federal Facilities and Environmental Compliance: Toward A Solution*, 36 *Loy. L. Rev.*

selected by the President and confirmed by the Senate, who will serve fourteen-year terms. Insulated, powerful, and prestigious, this committee will possess the characteristics necessary to achieve the difficult task of remediating federal facility Superfund sites.

Moreover, it will not suffer from the bias or economic and political pressures that hinder state and EPA efforts to direct these cleanups. More importantly, the NEC avoids the regulatory gridlock created by the interface of the two major environmental statutes by placing control with only one entity.

The committee's inherent qualities will allow it to effect numerous changes in the current system for cleaning up these wastes. The NEC will prioritize federal facility sites on a national level, ensuring that the most heavily contaminated sites receive the limited funds available for cleanups.³⁶ It

319, 321 (1991). See Kassen, *supra* note 24, at 1475 & n.5 (relating that the estimated cost of cleaning up 24,000 federal facility NPL and non-NPL sites is \$400 billion, while the cost of cleaning up all 1000 private NPL facilities is only \$44 million). Additionally, I limited the NEC's application because the RCRA/CERCLA interface results in federal-state authority disputes only at federal facilities.

³⁶ See, e.g., Wegman & Bailey, *supra* note 2, at 869 ("If the share of the DOD budget devoted to cleanup is decreased--or even if it is held to present levels--it will be essential to spend prudently whatever clean-up funds are made available, and to utilize cost-efficient approaches to the maximum extent possible."); see also *infra* notes 505-10 and accompanying text (detailed discussion of prioritizing on a national level).

will create national clean-up standards to replace the current site-specific method, creating a more efficient, uniform process for determining such standards.³⁷ Finally, it will incorporate presumptive remedies, future land use, risk-assessment, and cost-benefit considerations into the remedy selection process, thereby accelerating the clean-up process and decreasing its overall cost.³⁸ Accordingly, these changes will allow the NEC to accomplish the ultimate goal of the clean-up process--the timely and cost-effective clean up of federal facility Superfund sites.

C. Scope

How did we get to the present juncture, and where do we go from here? Part II of this article details the evolution of federal environmental law--emphasizing those statutes governing hazardous waste--from its earliest beginnings.³⁹ It chronicles the enactment of major environmental legislation within the last quarter century, to include the National Environmental Policy Act of 1969 (NEPA),⁴⁰ the RCRA, and the

³⁷ See *infra* notes 511-19 and accompanying text (detailed discussion of national clean-up standards).

³⁸ See *infra* notes 520-39 and accompanying text (detailed discussion of remedy selection).

³⁹ See *infra* notes 46-226 and accompanying text.

⁴⁰ Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4370a (1988 & Supp. III 1991)). See *infra* notes 65-72 and accompanying text.

CERCLA. It ends with the Superfund Amendments and Reauthorization Act of 1986 (SARA),⁴¹ which subjected federal facilities to the provisions of the CERCLA and finally brought them under statutory and regulatory control.

Part III discusses the formation and growth of the DOD's environmental restoration programs.⁴² Thus, parts II and III

⁴¹ Pub. L. No. 99-499, 100 Stat. 1613 (codified in scattered sections of 26 U.S.C. and 42 U.S.C.). See *infra* notes 180-226 and accompanying text. The SARA actually amended the CERCLA.

⁴² See *infra* notes 227-303 and accompanying text. I examine the DOD because it is representative of the major problems and programs present at federal facilities. Nevertheless, my recommendations apply to all federal facilities, not just the DOD's. I provide facts and figures on other federal facilities where appropriate.

Note, however, that "[t]he vast majority of federal facilities that have released contamination into the environment are defense facilities, owned and operated by the Department of Defense (DOD) or by the Department of Energy (DOE), the agency responsible for manufacturing and maintaining nuclear weapons." Kassen, *supra* note 24, at 1475 & n.3 (citing to a conversation with Mr. Thomas P. Grumbly, Assistant Secretary for Environmental Management, DOE, in which he related that Alice Rivlin, Director of the Office of Management and Budget (OMB), had "suggested naming a draft report on environmental restoration at federal facilities, 'The Elephant, the Rabbit, and the Mice,' as a way of describing the relative sizes of the tasks at DOE, DOD, and all other federal agencies").

The Department of the Interior (DOI) has the most contaminated sites, followed by the DOD, DOE, the Department of Agriculture (USDA) and the National Aeronautics and Space Administration (NASA). However, due to the nature of the contamination at DOE sites (radioactive wastes), the estimated cost to clean DOE's sites dwarfs that of the remaining federal facilities combined. See also *infra* Appendix D (providing figures from a recent report on cleanups at federal facilities prepared by the Federal Facilities Policy Group); DEPARTMENT OF ENERGY, DOE/EM-0232, ESTIMATING THE COLD WAR MORTGAGE: THE 1995

will familiarize readers with the various issues and concerns surrounding hazardous waste cleanups, especially at federal facilities, and the statutes enacted to address these concerns. This familiarization is fundamental to an understanding of the problem and my recommended solution.

Part IV examines the RCRA/CERCLA interface and the regulatory gridlock that it creates.⁴³ Part V analyzes potential solutions to the overlapping regulatory authorities aimed at removing the gridlock.⁴⁴ Part VI recommends creating the NEC and discusses the advantages of forming such a committee. I also address potential objections to the committee, ultimately concluding that it represents the best solution to the gridlock currently impeding federal facility clean-up efforts.⁴⁵

In sum, to achieve the successful cleanup of federal facility Superfund sites, Congress must take control of the clean-up process away from the states and the EPA. It must then vest it in a national committee that possesses the

BASELINE ENVIRONMENTAL MANAGEMENT REPORT (1995).

⁴³ See *infra* notes 304-429 and accompanying text. Part IV details how these federal statutes overlap, creating federal-state authority disputes at federal facility NPL sites. It also describes the effect that the disputes have on the pace and cost of the clean-up process at these sites.

⁴⁴ See *infra* notes 430-81 and accompanying text.

⁴⁵ See *infra* notes 482-546 and accompanying text.

ability to manage the process to a successful conclusion.

II. America and Hazardous Waste

*Recent decades have borne witness to the dubious merit of American hazardous waste disposal practices. The enormous technological advances credited to those years are no longer viewed as entirely benign. Americans are now aware of the high cost of industrial progress--the increased menace of hazardous contamination.*⁴⁶

A. The Early Years

1. The Industry "Boom"--The era of rapid industrialization⁴⁷ in America from the mid-1800s through the

⁴⁶ Sean Sweeney, *Owner Beware: Lender Liability and CERCLA*, 79 A.B.A. J. 68, 68 (Feb. 1993).

⁴⁷ This period, commonly referred to as the "industrial revolution," was a shift in the United States from the "traditional agricultural-based economy" to an economy "based on the mechanized production of manufactured goods in large-scale enterprises." MICROSOFT ENCARTA '95 INTERACTIVE MULTIMEDIA ENCYCLOPEDIA (1995) [hereinafter ENCARTA] (search of History library under "Industrial Revolution"). Such a period generally is characterized by the development of new methods of production, achieved by the "systematic application of scientific and practical knowledge to the manufacturing process." *Id.* It also involves urbanization--or the migration of the population from rural to urban locations. *Id.* Industrialization usually results in an increase in the national income per capita and changes in how this income is

1980s, coupled with the chemical industry expansion following the World Wars,⁴⁸ resulted in the production of massive amounts of hazardous wastes.⁴⁹ These wastes included every imaginable toxic substance--"flammables, explosives, nuclear and petroleum fuel by-products, germ-laden refuse from hospitals and laboratories, toxic metals such as mercury or lead, and dozens of synthetic chemical compounds including DDT, PCBs and dioxins."⁵⁰ American industry disposed of these wastes through

distributed, as well as in social classes and in working and living conditions. *Id.* Quite obviously, it also can have a tremendous impact on the environment as a result of the increase in the production of manufactured goods and the concomitant increase in the wastes generated by this production.

⁴⁸ See Richard J. Hunter & Daniel Naujokas, *Liability of Corporate Officers and Directors in the Environmental Context Under the "Authority to Control" Doctrine*, 28 MID-ATLANTIC J. BUS. 147 (June 1992) (no. 2) (the authors were students at Seton Hall University Stillman School of Business).

⁴⁹ See J. GORDON ARBUCKLE, ENVIRONMENTAL LAW HANDBOOK 60 (12th ed. 1993) (indicating that post-war America produced massive quantities of hazardous wastes). Estimates in the early 1980s indicated that the chemical industry generates approximately 70% of this waste. Sharon L. McCarthy, *CERCLA Cleanup Costs Under Comprehensive General Liability Insurance Policies: Property Damage or Economic Damage?*, 56 FORDHAM L. REV. 1169, 1169-70 (1988) (citing M. KRATZMAN, CHEMICAL CATASTROPHES: REGULATING ENVIRONMENTAL RISK THROUGH POLLUTION LIABILITY INSURANCE 14 (1985)).

⁵⁰ Note, *Developments in the Law--Toxic Waste Litigation*, 99 HARV. L. REV. 1458, 1462 (1986) [hereinafter *Developments*]. The note indicates that "[t]he volume of hazardous wastes has increased dramatically in the last decade [1970-1981]." From 1970, when "industry produced only about 9 million metric tons," the volume surged to an astonishing 43 million metric tons in 1981. *Id.* at 1462 & n.2 (citing COUNCIL ON ENVIRONMENTAL QUALITY, THIRTEENTH ANNUAL REPORT (1982), reprinted in F. GRAD, ENVIRONMENTAL LAW § 4.04, at 640 (3d ed. 1985); EPA, OFFICE OF SOLID WASTE MANAGEMENT PROGRAMS, REPORT TO CONGRESS: DISPOSAL OF HAZARDOUS WASTES 4 (1974), reprinted in 2 THE POLLUTION CRISIS 321, 326 (E. Rabin & M. Schwartz eds. 1976)).

a variety of methods. Toxic wastes placed in fifty-five gallon metal barrels were buried at any number of "fly by night" waste disposal facilities. Worse yet, free-flowing liquids were poured into open landfills and "oozy lagoons."⁵¹ The state of hazardous waste disposal during this era was, by modern standards, appalling.⁵²

The military was no less responsible than the private sector for this escalation in the amount of hazardous wastes, or for the manner in which they were discarded.⁵³ Beginning after World War I (WWI)--in an attempt to develop chemical weapons to counter those Germany possessed and used during the

⁵¹ *Developments*, *supra* note 50, at 1462; McCarthy, *supra* note 49, at 1170 n.3 (citing Finegan, *Double Billing*, Inc., Mar. 1988, at 50). Apparently, some in the chemical industry honestly believed that placing wastes in metal barrels or drums and covering them in clay would contain the wastes and prevent them from leaking.

Unfortunately, just the opposite occurred. These containers and various other burial methods ultimately proved ineffective in restraining the wastes, which ultimately leaked into the surrounding ground and were dispersed into the air, water, and soil.

⁵² See *Developments*, *supra* note 50, at 1469 ("the postwar explosion of American industry brought increased use of the environment as a dumping ground for industrial by-products").

⁵³ See Kassen, *supra* note 24, at 1435 (citing Comment, Bettigole, *supra* note 4, at 667) (stating that "[t]he federal government is the nation's largest polluter," and attributing the majority of contamination released from federal facilities to Department of Defense (DOD) and Department of Energy (DOE) facilities).

war⁵⁴--the military began generating increasingly greater amounts of hazardous wastes as a result of both its chemical and nonchemical weapons production.⁵⁵

This tremendous industrial growth, coupled with a growth

⁵⁴ Although chemical agents have existed in some manner for centuries, their most widespread use occurred during WWI. Lieutenant Colonel Warren G. Foote, *The Chemical Demilitarization Program--Will it Destroy the Nation's Stockpile of Chemical Weapons by December 31, 2004?* 146 MIL. L. REV. 1, 4 (1994) (citing Combat Studies Instit., United States Army Command and General Staff College, Charles Heller, *Chemical Warfare in World War I: The American Experience, 1917-1918*, 10 LEAVENWORTH PAPERS, Sept. 1984, at 8-10). Earlier attempts to prohibit the use of chemical agents--that is, the Hague Declaration in 1899 and the Treaty of Versailles in 1919, both of which prohibited the use of asphyxiating or poisonous gases--proved largely unsuccessful, as WWI demonstrated. The United States suffered 224,089 casualties as a result of Germany's use of poison gas in France in WWI, and Russia experienced nearly 475,000 nonfatal casualties and 56,000 deaths at the hands of Germany's chemical weapons. *Id.* at nn.16-17 (citing EDWARD SPIERS, *CHEMICAL WARFARE* 31-32 (1986)).

As a result, other countries--primarily the United States--recognized the need to develop their own chemical weapons as a deterrent to the first use by Germany and any other nations possessing such capability. Accordingly, the race to develop chemical agents and sophisticated delivery systems for these agents had begun.

⁵⁵ "Decades of improper and unsafe handling, storage, and disposal of hazardous materials while building and maintaining the world's most powerful fighting force have severely polluted America's air, water, and soil." Calhoun, *supra* note 20, at 60. As further evidence of his point, Calhoun cites to a base commander in Virginia who responded to criticism concerning toxic chemical contamination emanating from his installation by saying, "We're in the business of protecting the nation, not the environment." *Id.* Yet Calhoun also stresses that "the military has been taking great pains to project a new image and a changed attitude when it comes to environmental matters." *Id.*; see also *infra* notes 235-37 and accompanying text (a more detailed discussion of the military's efforts at increased awareness of environmental issues and protection).

in population and urbanization in the United States, led to serious degradation of the environment.⁵⁶ In the early 1960s, the public began to notice the effects on the country's natural resources. Rachel Carson's epic *Silent Spring*⁵⁷ in 1962 subsequently served as the catalyst for the environmental movement. It raised the nation's environmental consciousness by "describing the systematic destruction of rivers, streams, lakes and drinking water in the United States" from the use and abuse of pesticides and other manmade chemicals.⁵⁸

⁵⁶ Scott C. Whitney, *Superfund Reform: Clarification of Cleanup Standards to Rationalize the Remedy Selection Process*, 20 COLUM. J. ENVTL. L. 183 (1995) (indicating that industrialization "damaged the environment by polluting the air, the surface water in lakes, rivers, and adjacent oceans, and the water in sub-surface aquifers [and] created a vast inventory of hazardous and solid waste sites throughout the nation"). See A. REITZE, ENVIRONMENTAL LAW 23 (2d ed. 1972); see also *infra* note 65 (discussing the effects of population and conservation on the environment).

⁵⁷ RACHEL CARSON, *SILENT SPRING* (1962). Carson, an American marine biologist, was employed from 1936 through 1952 as an aquatic biologist for the United States Bureau of Fisheries and its successor, the United States Fish and Wildlife Service (FWS). Known for her scientific accuracy, Carson "questioned the use of chemical pesticides and was responsible for arousing worldwide concern for the preservation of the environment" in *Silent Spring*. ENCARTA, *supra* note 47 (search of Life Science library, within the subcategory People in Life Science, under "Rachel Louise Carson").

⁵⁸ James J. King, *Assessing the Mess*, BEST'S REVIEW--PROP. & CASUALTY INS. EDITION, June 1989, at 68 (vol. 90, no. 2). Carson's writing galvanized public opinion in the early days of the environmental movement. Another commentator noted that

[p]rior to NEPA's enactment, modern environmental law and policy began in the early and mid-1960s with a few causes celebre centering around the preservation of a resource.

To Rachel Carson, the resource was birds whose

The federal courts also contributed to this environmental awakening. In 1965, the United States Court of Appeals for the Second Circuit (Second Circuit) handed down its decision in *Scenic Hudson Preservation Conference v. Federal Power Commission (Scenic Hudson)*.⁵⁹ *Scenic Hudson* concerned the preservation of Storm King Mountain on the Hudson River, and was the case that many believe established the framework for environmental law for the ensuing years.⁶⁰ Thus, out of a

spring would be silent if the Department of Transportation ranged unchecked.

David Sive, *U.K. and U.S.: Each Contribute to Environmental Ethic*, OIL DAILY, May 18, 1990, at 4. The Conservation Foundation also played a major role in the development of modern environmental law, focusing on "building ecological principles into development activities." Russell E. Train, *The Council on Environmental Quality*, E.P.A. J. Jan.-Feb. 1990, at 18 (Train was the first Chairman of the Council on Environmental Quality (CEQ), a former administrator of the EPA, and the Chairman of the Board of the World Wildlife Fund and The Conservation Foundation).

⁵⁹ 354 F.2d 608 (2d. Cir. 1965). The decision "established that courts could require federal agencies to pay heed to environmental concerns. Judicial review of agency action became an important new battleground for environmental groups." Robert V. Percival, *Environmental Federalism: Historical Roots and Contemporary Models*, 54 MD. L. REV. 1141, 1159 (1995).

⁶⁰ Sive & Riesel, *A Grass-Roots Fire Spread Through the Law*, NAT'L L. J., Nov. 29, 1993, at S24 (15th Anniversary Edition, 1978-1993, Environmental Law Section) ("Initially, courts tended to follow the teaching of *Scenic Hudson*, rigorously requiring agencies to develop procedures for the meaningful examination of environmental issues."); see also Sive, *supra* note 58, at 5 (indicating that the concept of reasonable "alternatives to the proposed action" that would lessen the environmental impact arose out of *Scenic Hudson*). Congress subsequently incorporated this concept into requirements set out in the National Environmental Policy Act

growing concern over the destruction of limited natural resources as the direct result of pollution, the environmental movement was born.

2. *Environmental Legislation of the 1960s*--Congress responded to this movement by enacting a steady stream of environmental legislation during the 1960s to protect the nation's air and water, and regulate the disposal of solid wastes.⁶¹ However, Congress failed to confront the dangers

of 1969 (NEPA).

⁶¹ Congress initially addressed the deteriorating quality of the air in 1955, with the Clean Air Act of 1955, Pub. L. No. 84-159, 69 Stat. 322 (1955) (codified as amended at 42 U.S.C. §§ 7401-7642q (1988 & Supp. III 1991)). It subsequently amended this statute in 1963, 1965, 1966, and 1967. See Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392 (1963); the National Emissions Standards Act of 1965, Pub. L. No. 89-272, 79 Stat. 992 (1965); the Clean Air Act Amendments of 1966, Pub. L. No. 89-675, 80 Stat. 954 (1966); and the Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485 (1967).

Congress likewise first addressed the deteriorating quality of the water in the 1950s, with the Federal Water Pollution Control Act of 1952, 66 Stat. 755 (1952). It subsequently amended this statute in 1960, 1961, 1965, and 1966. See Federal Water Pollution Act Amendments of 1960, Pub. L. No. 86-624, 74 Stat. 411 (1960); Federal Water Pollution Control Act Amendments of 1961, Pub. L. No. 87-88, 75 Stat. 204 (1961); Federal Water Pollution Control Act Amendments of 1965, Pub. L. No. 89-234, 79 Stat. 903 (1965); Federal Water Pollution Control Act Amendments of 1966, Pub. L. No. 89-753, 80 Stat. 1246 (1966).

Congress also passed legislation in 1965 designed to regulate the disposal of solid wastes. See Solid Waste Disposal Act, Pub. L. No. 89-272, 79 Stat. 992 (1965) (codified as amended at 42 U.S.C. §§ 6901-6987 (1982)). See also *Developments*, *supra* note 50, at 1469, nn.17 & 18 and accompanying text (for additional discussion of these statutes).

posed by the steadily increasing amounts of hazardous wastes. Instead, the statutes regulating solid waste disposal addressed only refuse dumping and recycling concerns.⁶² This was due, in part, in not recognizing most of the hazardous substances present at waste disposal sites.⁶³ Methods did not exist at the time to detect the chemicals seeping into and contaminating groundwater supplies. Moreover, the effects of many of these chemicals were cumulative and were not identifiable for long periods of time.

Even though Congress reacted to the public's concern by enacting considerable legislation during the 1960s to lessen the effects of pollution on the nation's air, water, and land, America was left with a "ticking time bomb"⁶⁴--in the form of hazardous waste disposal sites--with no environmental regulations with which to combat the danger.

B. The National Environmental Policy Act of 1969

1. *The NEPA, EPA, and CEQ*--The federal government lacked

⁶² *Developments, supra* note 50, at 1462 & n.18.

⁶³ Maryann Bird, *Issue and Debate Battle of Toxic Dumps: Who Pays For Cleanup?*, N.Y. TIMES, July 11, 1980, at B4.

⁶⁴ See Robert C. Eckhardt, *The Unfinished Business of Hazardous Waste Control*, 33 BAYLOR L. REV. 253, 254 (1981) ("like a ticking time bomb, enormous quantities of hazardous wastes threatened explosion, injurious human contact, and contamination of groundwater").

a true environmental policy until New Year's Day, 1970, when President Richard M. Nixon signed into law the National Environmental Policy Act of 1969 (NEPA).⁶⁵ Nixon signed the measure into law in the wake of an oil spill from a Union Oil Company ship in the Pacific Ocean off the coast of Santa Barbara.⁶⁶ Legal commentators generally consider the NEPA to be the "father of the environmental movement."⁶⁷ Congress and

⁶⁵ 42 U.S.C. §§ 4321-4370a (published as Appendix C in DEPARTMENT OF ARMY, REG. 200-2, ENVIRONMENTAL EFFECTS OF ARMY ACTIONS (23 Dec. 1988) [hereinafter AR 200-2]); see Roger D. Staton, *EPA's Final Rule on Lender Liability: Lenders Beware*, 49 BUS. LAW. 163 (Nov. 1993). But see Arnold W. Reitze, Jr., *Environmental Policy--It Is Time for a New Beginning*, 14 COLUM. J. ENVTL. L. 111, 119-20 (1989) (stating that "[t]here was (and still is) no overall environmental program or goal The environmental field lacks any overall plan or direction."). Reitze contends that the nation's regulations to clean up the environment ignore the "twin problems" of population and consumption. He argues that the United States instead should adopt a comprehensive environmental policy that integrates the effects of population, material conservation, and energy policies on environmental law, takes a "long-range view of environmental priorities," and considers costs and benefits. *Id.* at 120-21.

⁶⁶ See *An Agency Seeking its Own Level*, L.A. TIMES, Jan. 24, 1990, at B6 [hereinafter *Seeking its Own Level*].

⁶⁷ See King, *supra* note 58, at 68 (stating that "the environmental movement was born with the passing of NEPA," and "the U.S. Congress has passed an additional 30 pieces of legislation that regulate how we live and work in our environment. The majority of these were passed into law within the last 20 years as a result of the National Environmental Policy Act of 1969."); Train, *supra* note 58, at 18 (stating that "the environmental movement came of age in the 1970s"); Hila J. Alderman, *The Ghost of Progress Past: A Comparison of Approaches to Hazardous Waste Liability in the European Community and the United States*, 16 HOUS. J. INT'L L. 311, 311 (1993) (stating, "[t]he 1970s marked the breakwater decade for the environmental movement in the United States. During those ten years, Americans led the way in environmental legislation in fields such as clean air, clean water, waste regulation, and safe drinking water." (citations omitted));

the President recognized the need for stronger environmental legislation and a "new, specialized federal agency with authority to administer and enforce the federal legislation that had been, and was in the process of being, enacted to protect the environment."⁶⁸ Congress's intent with the NEPA was to "declare a national policy" encouraging protection of the environment.⁶⁹ However, the NEPA also established the

Philip T. Cummings, *Completing the Circle*, ENVTL. F. Nov.-Dec. 1990, at 11 (discussing the developments in the environmental law arena during the decade of the 1970s). The year 1970 also saw the first Earth Day celebrated on April 22. *Seeking its Own Level*, *supra* note 66, at B6.

⁶⁸ Whitney, *supra* note 56, at 183.

⁶⁹ 42 U.S.C. § 4321. Congress defined the NEPA's purpose as follows:

to declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the nation; and to establish a Council on Environmental Quality.

Id. Congress further indicated that the Act would

use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

Id. § 4332(a).

Distilled to its simplest form, the NEPA requires federal agencies to consider alternative courses of action to avoid, or at least reduce, any negative impact or effect on the environment before taking any major federal action. The

CEQ,⁷⁰ a staff office located in the Executive Office of the

federal agency must consider such impact or effect and factor it into the decision-making process. *Strycker's Bay Neighborhood Council v. Karlan*, 444 U.S. 223 (1980); *Robertson v. Methow Valley Citizens Council*, 109 S. Ct. 1835, 1846 (1989); see also Charles H. Eccleston, *NEPA: Determining When an Analysis Contains Sufficient Detail To Provide Adequate Coverage for a Proposed Action*, 6 FED. FACILITIES ENVTL. J. 37-38 (Summer 1995) (detailed discussion of the NEPA); Train, *supra* note 58, at 18 (stating that the NEPA "required bureaucrats to look at alternatives to proposed actions--including the alternative of doing nothing--if a planned course of action would damage the environment"). "The project when finished may be a complete blunder; NEPA requires that it be a knowledgeable blunder." *Matsumoto v. Brinegar*, 568 F.2d 1289, 1290 (9th Cir. 1978). The Act accomplishes this by requiring federal agencies to complete an environmental impact statement (EIS) every time they begin "major federal actions" significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C).

⁷⁰ 42 U.S.C. § 4342. Congress's intent was that the CEQ "provide a consistent and expert source of review of national policies, environmental problems and trends, both long-term and short-term." 115 CONG. REC. 26,572 (1969) (statement of Rep. Dingell). Dingell (D-MI), the chief proponent of the CEQ in the House, indicated that the CEQ was to effect "a systems approach to the problems of living in harmony with the environment in this world." Carl Bausch, *The Impending Demise of the Council on Environmental Quality: Is it Really Necessary Anyway?* 4 FED. FACILITIES ENVTL. J. 3, 5 (Spring 1993) (citing *Hearings on H.R. 6750 Before the Subcomm. on Fisheries and Wildlife Conservation of the House Comm. on Merchant Marine and Fisheries*, 91st Cong., 1st Sess. 137 (1969)). Bausch, a former assistant general counsel in the CEQ, provides an excellent description of the roles and duties of the Council. Note, however, that he argues that the subsequent reorganization of the executive branch in 1970--to include the creation of a Domestic Council within the Executive Office of the President to advise the President on domestic issues (including the environment)--created ambiguity as to the CEQ's precise role. *Id.* at 4.

Nevertheless, the CEQ has functioned effectively for 23 years, and President Clinton's attempts to abolish the CEQ as part of his plan to "reinvent government" in 1993 met with strong opposition. See Steve LaRue, *UCSD Professor Says Clinton Should Keep Environmental Panel*, SAN DIEGO UNION-TRIB., Feb. 10, 1993, at A6; Alex Beam, *Easy Come, Easy (Re)Go*, BOSTON GLOBE, Oct. 25, 1993, at 17 (discussing President Clinton's

President, as well as the EPA.⁷¹ Both the CEQ and the EPA were to be environmental "watchdogs."⁷²

plan to reinvent government, and noting that it was known as "rego" in insider lingo).

The president's plan was to replace the CEQ with the Office of Environmental Policy (OEP)--ostensibly to create a "smaller office" closer to the President so that environmental issues "could have more of a priority"--but the 103d Congress opposed the plan. *CEQ Seeks to Coordinate Efforts in Reforming Laws, McGinty Says*, Nat'l Env'tl. Daily (BNA), Mar. 3, 1995, at 1. Instead, the White House agreed to merge the OEP into the CEQ as of January, 1995.

⁷¹ The EPA was actually created by presidential order. See Reorganization Plan No. 3 of 1970, 18 C.F.R. § 380 (1993), reprinted in 42 U.S.C. § 4321 (1988), reprinted in 5 U.S.C. app. at 1343 (1988), and in 84 Stat. 6322 (1970). The reorganization plan assigned the EPA the "responsibility for efficiently developing knowledge about, and effectively ensuring the protection, development, and enhancement of, the total environment." Bausch, *supra* note 70, at 4.

Moreover, the reorganization of the executive branch "centralized EPA authority over various environmental regulatory programs that had been previously scattered throughout diverse agencies of the federal government." Whitney, *supra* note 56, at 183-84. The EPA assumed the duties and responsibilities of the Federal Water Pollution Control Agency (FWPCA), the National Air Pollution Control Administration (NAPCA), and some of the responsibilities of the former Department of Health, Education, and Welfare (HEW) (now the Department of Health and Human Services), Food and Drug Administration, and Departments of Interior and Agriculture. Thus, the EPA was entrusted with regulation of the air, water, solid waste and resource recovery, and pesticides. Finally, the EPA was tasked with administering the Safe Drinking Water Act of 1974 and the Toxic Substances Control Act of 1976. *Id.* at 184 (Whitney provides an excellent discussion of the origin of the EPA and its functions).

⁷² Robert Cahn, *Keeping US Agencies Focused on Environment*, CHRISTIAN SCI. MONITOR, Apr. 1, 1993, at 19 ("the landmark law that established CEQ--the National Environmental Policy Act of 1969 (NEPA)--charged CEQ with the responsibility of overseeing the vital environmental impact statement process, which has made some progress in establishing a conservation ethic among government agencies.") (Cahn, the

2. *Environmental Legislation of the 1970s*--An explosion of environmental legislation followed Congress's enactment of the NEPA.⁷³ These laws "inserted the federal government

author of this article, served from 1970-72 as one of the original members of the CEQ).

See also Millan, *supra* note 35, at 340 (referring to the EPA as "the nation's environmental watchdog").

⁷³ See Sive, *supra* note 58, at 4 (calling it a "great tide of legislation beginning with the Clean Air Act in 1970"); Reitze, *supra* note 65, at 111-12 nn.1 & 3 (stating that Nixon's signing of the NEPA ushered in the "decade of the environment"). Reitze identifies the major environmental statutes and amendments to major environmental statutes that occurred during this period:

a. Clean Air Act, Pub. L. No. 84-159, 69 Stat. 322 (1955); Clean Air Act Amendments of 1966, Pub. L. No. 89-675, 80 Stat. 954 (1966); Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1976 (1970); Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (1977) (codified at 42 U.S.C. §§ 7401-7642 (1982)).

b. Federal Water Pollution Control Act, 66 Stat. 755 (1952); Federal Water Pollution Act [sic] Amendments of 1972, Pub. L. No. 87-88, 75 Stat. 204 (1961); Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (1972); as last amended by Pub. L. No. 100-4, 101 Stat. 60 (1987) (codified at 33 U.S.C.A. §§ 1251-1387 (West 1986 & 1987 Supp.)).

c. Toxic Substances Control Act, Pub. L. No. 94-469, 90 Stat. 2003 (1976); as last amended by Pub. L. No. 99-519, 100 Stat. 2989 (1986) (codified at 15 U.S.C. §§ 2601-2629 (1982 & Supp. IV 1986)).

d. Federal Insecticide, Fungicide and Rodenticide Act, c. 125 §§ 2-13, 61 Stat. 163 (1947); Pub. L. No. 92-516, 86 Stat. 975 (1972) as last amended by Pub. L. No. 98-620, 98 Stat. 3357 (1984) (codified at 7 U.S.C. §§ 36-136y (1982 & Supp. IV 1986)).

e. Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (1976), as last amended by Pub. L. No. 99-499, 100 Stat. 1613 (1986)

into nearly every ecological niche: clean air, clean water, occupational safety, pesticides, endangered species, drinking water, toxics, and newly generated waste,"⁷⁴ to name only a few. Tragically, none of these new statutes addressed the numerous hazardous waste disposal sites still festering across the country, posing the greatest immediate risk to hundreds of thousands of Americans. As of 1976, the nation had yet to realize the full extent of the hazardous waste disposal problem.

C. The Resource Conservation and Recovery Act of 1976

What Congress did realize--albeit not until the mid-1970s-

(codified at 42 U.S.C. §§ 901-6991i (1982 & Supp. IV 1986)).

f. Marine Protection, Research and Sanctuaries Act of 1972, Pub. L. No. 92-532, 86 Stat. 1052 (1972); as last amended by Pub. L. No. 99-499, 100 Stat. 1613 (1986) (codified at 33 U.S.C. §§ 401-1445 (1982 & Supp. IV 1986)).

g. Safe Drinking Water Act, Pub. L. No. 93-523, 88 Stat. 1660 (1974); as last amended by the Safe Drinking Water Act Amendments of 1986, Pub. L. No. 99-399, 100 Stat. 642 (1986) (codified at 42 U.S.C. §§ 300f-300j-11 (1982 & Supp. IV 1986)).

Id. Some commentators believe that the passage of such major legislation was foreseeable once Congress and the EPA realized the overwhelming task that lay ahead. Staton, *supra* note 65, at 163.

⁷⁴ Major Stephen Russell Henley, Superfund Reauthorization 1994: DOD's Opportunity to Clean Up Its Hazardous Waste Act 5 (1994) (unpublished LL.M. thesis, The Judge Advocate General's School, United States Army, Charlottesville, Virginia) (citations omitted).

-was that the nation had allowed industry to dispose of its wastes for decades without any regulatory control.⁷⁵ In 1976, Congress attempted to prospectively regulate the disposal, inter alia, of hazardous wastes in the Resource Conservation and Recovery Act of 1976.⁷⁶

1. *The RCRA Defined*--The RCRA actually was an amendment to the Solid Waste Disposal Act of 1965.⁷⁷ Congress designed the RCRA to control solid⁷⁸ and hazardous⁷⁹ wastes from their

⁷⁵ Eckhardt, *supra* note 64, at 255. This 1981 article was authored by Robert C. Eckhardt, a former member of the United States House of Representatives (D-Tx.), and Chairman of the House Oversight and Investigations Subcommittee of the Interstate and Foreign Commerce Committee. His subcommittee heard testimony concerning the hazardous waste disposal problem in 1979-80 during the 96th Congress and conducted its own survey, in addition to reports conducted by and for the EPA, to determine the extent of the problem. The subcommittee's survey discovered that "1,100 disposal sites, holding about 100 million tons of chemical wastes, had been used by the Nation's 53 largest chemical companies, since 1950 without any regulatory control." *Id.* (citing 126 CONG. REC. S14,903 (daily ed. Dec. 24, 1980) (statement of Sen. Jennings)).

⁷⁶ 42 U.S.C. §§ 6901-6992k.

⁷⁷ See *supra* note 61 (discussing the Solid Waste Disposal Act of 1965); see also Elizabeth F. Mason, *Contribution, Contribution Protection, and Nonsettlor Liability Under CERCLA: Following Laskin's Lead*, 19 B.C. ENVTL. AFF. L. REV. 73, 78 n.2 (1991). Mason indicates that "[t]he 1976 Act was a complete revision of the Solid Waste Disposal Act of 1975 . . . Congress amended the 1976 Act by enacting first the Solid Waste Disposal Amendments of 1980 . . . and then the Hazardous and Solid Waste Amendments of 1984." *Id.* (statute citations omitted).

⁷⁸ Solid wastes are defined as liquid, semi-liquid, or containerized gaseous materials that have been discarded, served their intended purpose, or are a manufacturing by-product. Solid wastes do not include domestic sewage and

generation through their disposal--what is commonly referred to as "cradle to grave" regulation.⁸⁰ The act regulates all wastes that are not covered under another statute.⁸¹

discharges from National Pollution Discharge Elimination System (NPDES) point sources. 40 C.F.R. § 261.2.

⁷⁹ Hazardous wastes are solid wastes that are defined at 40 C.F.R. § 261. Hazardous wastes, for the purposes of RCRA, were to be defined by the EPA. 42 U.S.C. § 6921. Generally, hazardous wastes are solid wastes that are (1) listed; (2) ignitable, corrosive, reactive, or that have the toxicity characteristics defined in RCRA subpart C (40 C.F.R. § 261.20-261.24); (3) a mixture of a solid waste and a hazardous waste listed in RCRA subpart D (40 C.F.R. § 261). "Listed" refers to three lists developed and maintained by the EPA. The first contains hazardous wastes from nonspecific sources (40 C.F.R. § 261.31), the second contains hazardous wastes from specific sources (40 C.F.R. § 261.32), and the third contains commercial chemical products--to include those chemicals that are acutely hazardous when discarded (40 C.F.R. § 261.33(e)) and those that are toxic when discarded (40 C.F.R. § 261.33(f)). Interview with Major David N. Diner, Professor, Environmental Law, Administrative and Civil Law Department, The Judge Advocate General's School, United States Army, Charlottesville, Virginia, in Charlottesville, Virginia (Feb. 10, 1996) [hereinafter Diner Interview] (providing a detailed definition of the term "hazardous waste").

⁸⁰ Congress's intent was to provide "nationwide protection against the dangers of improper hazardous waste disposal." H.R. REP. NO. 1491, 94th Cong., 2d Sess. 11, reprinted in 1976 U.S.C.C.A.N. 6238, 6249 [hereinafter H.R. REP. NO. 1491]. See Bruce R. Bryan, *The Battle Between Mens Rea and the Public Welfare: United States v. Laughlin Finds a Middle Ground*, 6 FORDHAM ENVTL. L.J. 157, 174-75 & n.103 (Spring 1995) (citing Ann K. Pollack, Note, *The Role of Injunctive Relief and Settlements in Superfund Enforcement*, 68 CORNELL L. REV. 706, 709 n.24 (1983) ("suggesting that 'commentators have deemed RCRA system a 'cradle-to-grave' statutory scheme because subtitle C of the Act traces hazardous waste from generator, to transporter, to disposal facility.'")).

⁸¹ The RCRA is broken down into nine subchapters, or subtitles, each dealing with a different program or aspect of the overall federal policy covering solid and hazardous wastes. See *infra* Appendix C (listing the nine subtitles of the RCRA).

Pursuant to the RCRA, any facilities⁸² that treat, store, or dispose of (TSDFs)⁸³ hazardous wastes⁸⁴ must obtain permits to do so.⁸⁵ Similarly, generators⁸⁶ of such wastes must register with the EPA and obtain EPA identification numbers prior to treating, storing, or disposing of hazardous wastes.⁸⁷ They must comply with all other RCRA requirements concerning

⁸² The term facility generally is defined as "all contiguous land and structures, other improvements, and appurtenances on the land used for treating, storing, or disposing of hazardous waste." 40 C.F.R. § 260.10.

⁸³ The terms "treatment," "storage," and "disposal" are defined at 40 C.F.R. § 260.10.

⁸⁴ See *supra* note 79 (detailed definition of the term "hazardous wastes").

⁸⁵ 42 U.S.C. § 6925. The RCRA permit process is described in detail at 40 C.F.R. Part 270. Operators of TSDFs are responsible for obtaining a RCRA permit. For Army installations employing in excess of 250 people, this translates into the Army installation commander--colonel or higher--signing as the facility owner. The EPA or authorized states may issue these permits to TSDFs.

For a state to become authorized to issue permits, its hazardous waste program must be as stringent as (or more), and consistent with, the federal program (as well as other authorized state programs). It must also ensure enforcement of compliance with the RCRA's subtitle C (the hazardous waste subtitle). The EPA delegates its authority to qualifying states to administer portions of the hazardous waste program. The agency, however, retains parallel authority (and ultimate responsibility) to enforce the RCRA's provisions even when it delegates authority to a state. *States usually can exercise a greater range of authorities and enforcement tools at federal facilities than can the EPA.* 40 C.F.R. pt. 272; Diner Interview, *supra* note 79 (discussing the RCRA permitting process). See *infra* notes 344-56 and accompanying text (detailed discussion of states' RCRA authority at federal facility Superfund sites).

⁸⁶ The term "generator" is defined at 40 C.F.R. § 260.10.

⁸⁷ *Id.* § 262.12(a).

storage⁸⁸ of, and record-keeping on,⁸⁹ these wastes. They also must comply with Department of Transportation (DOT) requirements for packaging and labeling of the wastes for transport,⁹⁰ and notify subsequent transporters, storers, and disposers of the hazardous nature of the wastes.⁹¹

⁸⁸ 42 U.S.C. § 6924. If the EPA determines that a facility qualifies as a Conditionally Exempt Small Quantity Generator (CESQG)--that is, those facilities that generate 100 kilograms or less of hazardous waste, or 1 kilogram or less of acutely hazardous waste, per calendar month--few requirements other than registering with the EPA apply. Diner Interview, *supra* note 79.

The RCRA considers facilities that generate 100 kilograms or more but less than 1000 kilograms per calendar month to be Small Quantity Generators (SQGs). Those facilities that generate more than 1000 kilograms of hazardous waste, or more than one kilogram of acutely hazardous waste, are considered regular generators. The EPA considers most military installations to be regular generators. *Id.*

Facilities may maintain Satellite Accumulation Points (SAPs) or Accumulation Points (APs) without a permit. The EPA allows no more than 55 gallons of hazardous waste or one quart of acutely hazardous waste at a SAP. Facilities may store hazardous wastes at an AP for up to 90 days, but must comply with strict EPA regulations governing APs. *Id.*

⁸⁹ 40 C.F.R. § 262; 42 U.S.C. § 6922(a)(1)&(5). The RCRA requires generators to maintain detailed records that identify the type and amount of any hazardous waste generated. The generator must prepare manifests, which trace the movement and ultimate disposal location of the waste. Such a mechanism ensures that the hazardous waste reaches its ultimate destination--an EPA approved (permitted) TSDF that will safely dispose of the waste. Generators should retain these manifests indefinitely.

⁹⁰ 49 C.F.R. pts. 172, 173, 178, 179; 42 U.S.C. § 6922(2)-(3).

⁹¹ 42 U.S.C. § 6922(4).

Transporters⁹² of these wastes must register with the EPA and follow all RCRA and DOT requirements as well.⁹³ Finally, operators⁹⁴ of TSDFs must obtain EPA identification numbers and RCRA permits, and comply with all other applicable RCRA requirements.⁹⁵

Thus, the RCRA's scope includes everything from identifying hazardous wastes, to tracking their movement through the use of a manifest system, to enforcing standards for owners and operators of TSDFs and transporters of the wastes. Congress designed this legislation with the ultimate goal of ensuring the safe handling of wastes throughout their lifecycle. To provide an incentive to comply with what it felt were pivotal regulations, Congress inserted language in the RCRA authorizing the imposition of civil and criminal

⁹² The term "transporter" is defined at 40 C.F.R. § 260.10.

⁹³ 40 C.F.R. pt. 263; 42 U.S.C. §§ 6923 (a)(2), 6923(a)(I).

⁹⁴ The term "operator" is defined at 40 C.F.R. § 260.10.

⁹⁵ Congress tasked the EPA with regulating all TSDFs from the initial design period through the postclosure period. The RCRA also requires additional protective measures: security systems and warning signs to prevent unauthorized entry (40 C.F.R. §§ 264.15, 265.15); inspection plans (40 C.F.R. §§ 264.15, 265.15); personnel training on RCRA requirements (40 C.F.R. §§ 264.16, 265.16); safety equipment in case of a spill, fire, or explosion (40 C.F.R. §§ 264.30-49, 265.30-49); operating records describing, among other things, the type, quantity and location of each hazardous waste within the facility (40 C.F.R. §§ 264.73, 265.73); reports to the EPA (40 C.F.R. §§ 264.75-77, 265.75-77); and detailed closure and postclosure plans (40 C.F.R. §§ 264.110-20, 265.110-20).

penalties for the failure to comply with the RCRA's provisions.⁹⁶

Unfortunately, the RCRA is only prospective in its application.⁹⁷ Numerous courts and commentators have argued that the act failed to provide the "authority, funding, or personnel" necessary to deal with the glut of hazardous waste disposal sites nationwide.⁹⁸ As such, the RCRA failed to properly address the hazardous wastes that had been disposed of improperly prior to its enactment.⁹⁹

⁹⁶ 42 U.S.C. § 6928. See H.R. REP. No. 1491, *supra* note 80, at 30 (stating that "[m]any times civil penalties are more appropriate and more effective than criminal. However, many times when there is a willful violation of a statute which seriously harms human health, criminal penalties may be appropriate.").

⁹⁷ "RCRA is forward looking legislation, designed to control hazardous waste generation. Because the RCRA focuses on controlling the present and future production of hazardous waste, it could not deal with Love Canal or any of the thousands of other toxic waste dump sites created in this country prior to 1976." James Edward Enoch, Jr., *Environmental Liability for Lenders After United States v. Fleet Factors, Corp.: Deep Pockets or Deep Problems?*, 48 WASH. & LEE L. REV. 659, 659-60 & n.8 (citations omitted) (citing Grunbaum, *Judicial Enforcement of Hazardous Waste Liability Law*, in DIMENSIONS OF HAZARDOUS WASTE POLITICS AND POLICY 163, 164 (1988) (noting that the RCRA is effective in upgrading some waste sites, but does not provide a solution to the problem of cleaning up dormant waste sites)).

⁹⁸ Mason, *supra* note 77, at 78 n.33 (citing *United States v. Northeastern Pharmaceutical & Chem. Co.*, 579 F. Supp. 823, 836 n.10, 838-39 (W.D. Mo. 1984), *aff'd in part, rev'd in part*, 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987); *United States v. A & F Materials Co.*, 578 F. Supp. 1249, 1252 (S.D. Ill. 1984)).

⁹⁹ See Major William D. Turkula, *Determining Cleanup Standards for Hazardous Waste Sites*, 135 MIL. L. REV. 167, 170

2. Toxic "Nightmares"--In the late 1970s, the reality of the enormous problem surrounding hazardous wastes disposed of prior to the RCRA's enactment began to receive national attention. Regulators discovered horrifying conditions at numerous disposal sites coast to coast. From Niagara Falls, New York,¹⁰⁰ to Elizabeth, New Jersey,¹⁰¹ to

(1992) (indicating that "[m]aking sure we do not create future environmental messes by our means of waste disposal, however, does not deal with the vexing problem of cleaning up the already contaminated sites all over the country.")

¹⁰⁰ Known as the infamous "Love Canal," this hazardous waste site was so replete with toxic chemicals that it became the "*nom de guerre* or rallying cry to clean up the environment." *Id.* at 167. The site exploded into the national limelight with the discovery in 1978 that the town of Niagara Falls had built a residential neighborhood and elementary school directly on top of an abandoned chemical dumping site. Records showed that approximately 80,000 tons-- or 352 million pounds--of hazardous waste had been dumped at the site, to include dioxin, "one of the most deadly substances known to man." Alderman, *supra* note 67, at 31.

The Love Canal, a 16-acre landfill site, actually was an unfinished hydroelectric channel originally constructed by William T. Love in the early 1900s. From the 1930s forward, the channel, or canal, had been used as a dumping grounds. From 1947 through 1952, the Hooker Chemical and Plastics Corporation had dumped and buried wastes, to include dioxin and various pesticides, at the site. Hooker covered the buried wastes with various soils including clay, which was considered an acceptable disposal method at the time.

Subsequently, the company transferred the site to the city of Niagara Falls for \$1. The city covered over the dump and constructed houses and a school on top of this morass of deadly chemicals. In 1976, heavy rains forced the chemicals to surface and seep into the water supply, posing serious risks to all of the residents. Reports surfaced that children and animals were burned while playing close to their homes, and that "[r]ocks striking the sidewalk sent off colored sparks." Dower, *Hazardous Wastes*, in *POLICIES FOR ENVIRONMENTAL PROTECTION* 151, 168 (R. Portney ed. 1990). Basements filled with "chemical soup" during heavy rains. See Robert D. McFadden, *Love Canal: A Look Back*, N.Y. TIMES, Oct. 30, 1984,

Shepardsville, Kentucky,¹⁰² ominous reports of extremely dangerous conditions surfaced, causing widespread concern and

at B6; ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 288 (1992); H.R. REP. NO. 1016, 96th Cong., 2d Sess. 18 (1980), reprinted in 1980 U.S.C.C.A.N. 6119, 6120 [hereinafter H.R. REP. NO. 1016]; MICHAEL ALLABY, DICTIONARY OF THE ENVIRONMENT 239 (1989); Donald G. McNeil, Jr., *Information Bank Abstracts*, N.Y. TIMES, Aug. 2, 1978, at 1.

Subsequent investigation showed that the soil samples from the site contained "evidence of contamination from 82 waste materials, of which 11 are known carcinogens." *Id.* Studies showed that there was an increase in the reporting of miscarriages, birth defects, and deaths due to various forms of cancer among residents of the site. *Id.*; Alderman, *supra* note 67, at 313 n.5 (citing Rachel Godsil, *Remedying Environmental Racism*, 90 MICH. L. REV. 394, 396 n.13 (1991)). Hundreds of residents had to evacuate and relocate when their homes were destroyed, and President Carter ultimately declared the site "to be the first man-made national disaster area." Rachel Giesbar, *Foolish Consistency? Compliance with the National Contingency Plan Under CERCLA § 107*, 70 TEX. L. REV. 1297, 1297 (1992). The cost of restoration efforts began to run into the millions. Residents filed numerous lawsuits requesting about \$16 billion in damages, which finally settled for almost \$20 million. McFadden, *supra*, at 1.

¹⁰¹ This Chemical Control hazardous waste site apparently contained about 40,000 drums "of highly toxic, explosive and flammable materials" [picric acid] "within a few feet of the Company's waste incinerator, within a few feet of a local road and a railroad right of way and within one quarter mile of huge liquefied natural gas and propane storage tanks." H.R. REP. NO. 1016, *supra* note 100, at 18-19.

¹⁰² Known as the "Valley of the Drums," this Kentucky waste site contained approximately 17,000 rotting metal drums filled with toxic waste, many of which had burst, spilling their contents into the surrounding lands. The waste ultimately seeped into land water near Louisville, Kentucky, and streams that eventually fed into the Ohio River. See Michael P. Healy, *Direct Liability for Hazardous Substance Cleanups Under CERCLA: A Comprehensive Approach*, 42 CASE W. RES. L. REV. 65, 69 n.8 (1992) (citing H.R. REP. NO. 1016, *supra* note 100, at pt. 1, at 18, reprinted in 2 SENATE COMM. ON ENVIRONMENT AND PUBLIC WORKS, 97TH CONG., 2D SESS., A LEGISLATIVE HISTORY OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (SUPERFUND) 118 (Comm. Print 1983)); Bird, *supra* note 63, at B4.

fear.¹⁰³ The shocking revelations concerning the "Love Canal" in Niagara Falls "created a strong public reaction to the specter of abandoned hazardous-waste dumps that exposed the public to the threat of latent disease."¹⁰⁴ Names like Love Canal, Times Beach, and the Valley of the Drums became

¹⁰³ Additional reports of horrendous conditions at other sites surfaced as well. In Hopewell, Virginia, just south of the capital city of Richmond, regulators disclosed that in 1977 Allied Chemical Company had illegally dumped thousands of pounds of kepone--an insect poison--into the James River. Allied was indicted for its actions by a federal grand jury, and subsequently paid \$5 million in fines. The state was forced to place a five-year ban on fishing in certain places on the river. See Healy, *supra* note 102, at 65, 69 n.9 (1992) (citing Douglas B. Feaver, *Hopewell Fined for Pollution, Says It Couldn't Be Helped*, WASH. POST, Dec. 16, 1981, at A29; Sandra Sugawara, *Virginia's James River Still Is Choked with Pesticide*, L.A. TIMES, Oct. 25, 1985, at 4.).

Moreover, the House Report accompanying the CERCLA provided this ominous account of the scene at Hooker Chemical and Plastic Corporation's waste disposal site in Montague, Michigan: "barrels of waste were often dumped off of the backs of trucks and hacked open by men armed with axes". H.R. REP. No. 1016, *supra* note 100, at 18-19.

At Times Beach, Missouri, the EPA discovered dioxin contamination, which had seriously affected the residents' health. The EPA ultimately purchased the site and evacuated its 2000 inhabitants. See KRATZMAN, *supra* note 49, at 14; see also *United States v. Northeastern Pharmaceutical and Chem. Co., Inc. (NEPACCO)*, 579 F. Supp. 823 (W.D. Mo. 1984), *aff'd in relevant part*, 810 F.2d 726, (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987). The facts of the case indicate the following: NEPACCO operated a chemical manufacturing plant in Missouri. This plant for years had placed its hazardous waste in 55 gallon drums and buried them on a farm in Verona, Missouri. The drums eventually leaked, contaminating the surrounding soil. The EPA cleaned up the contaminated soil, however, NEPACCO hired an outside contractor to dispose of the remaining waste. This contractor disposed of the waste by, among other things, "spraying them as a dust suppressant on the grounds of a stable . . . and on the roads in Times Beach, Missouri." *Id.*

¹⁰⁴ Sive & Reisel, *supra* note 60, at S25.

"synonymous with," and representative of, "corporate America."¹⁰⁵ The nation became fixated on the dangers posed by hazardous wastes and, to a certain extent, still is.¹⁰⁶

It was in the wake of these high-profile environmental disasters and amid a tremendous public outcry for remedies that Congress enacted the Comprehensive Environmental Response, Compensation and Liability Act of 1980.¹⁰⁷ Congress enacted this legislation to confront the problem surrounding hazardous waste previously generated and stored or disposed. In retrospect, it is troubling that even though the environmental movement initially took shape in the early

¹⁰⁵ HOUSE SUBCOMM. ON OVERSIGHT AND INVESTIGATIONS OF THE COMM. ON INTERSTATE AND FOREIGN COMMERCE, 96TH CONG., 1ST SESS., REPORT ON HAZARDOUS WASTE DISPOSAL 31 (Comm. Print 1979) (testimony before the subcommittee by James Moorman, Assistant United States Attorney in charge of Land and Natural Resources). Moorman stated that

[i]n the public's mind, places such as the Chemical Control site in Elizabeth, New Jersey, Love Canal in Niagara Falls, New York, the so-called Valley of the Drums in Shepardsville, Kentucky, and the Stringfellow Acid Pits in California had become synonymous with--and the symbols of--corporate America's reckless disregard of public health.

Id.

¹⁰⁶ See McFadden, *supra* note 100, at B6 (Love Canal and similar toxic waste disasters "stirred one of the most emotional debates on health and environmental issues that the nation has ever witnessed.").

¹⁰⁷ 42 U.S.C. §§ 9601-9675. Erika Clarke Birg, *Redefining "Owner or Operator" Under CERCLA to Preserve Traditional Notions of Corporate Law*, 43 EMORY L.J. 772, 774 (Spring 1994) (citing Sweeney, *supra* note 46, at 70).

1960s, it was not until late 1978 that these deadly disposal sites became the "target of environmental legislation."¹⁰⁸

D. The Comprehensive Environmental Response, Compensation and Liability Act of 1980

1. *Not Just the Love Canal*--Although the initial discovery of the Love Canal and other contaminated disposal sites thrust the issue to the "forefront of media and public attention,"¹⁰⁹ subsequent investigations, surveys, and studies conducted by the EPA and various other agencies revealed that these few sites were only the "tip of the iceberg."¹¹⁰ The EPA examined "pits, ponds and lagoons used to treat, store and dispose of liquid wastes."¹¹¹ This study identified

11,000 industrial sites with 25,000 such surface impoundments. . . . and that virtually no monitoring of groundwater was being conducted and that 30% of the impoundments, or 2,455 of the 8,221 sites assessed, are unlined, overlies usable

¹⁰⁸ Staton, *supra* note 65, at 165.

¹⁰⁹ Giesbar, *supra* note 100, at 1297.

¹¹⁰ The discovery of the Love Canal prompted the EPA to conduct these investigations, studies, and surveys. James R. Deason, *Clear as Mud: The Function of the National Contingency Plan Consistency Requirement in a CERCLA Private Cost-Recovery Action*, 28 GA. L. REV. 555, 556 n.1. (1994).

¹¹¹ S. REP. NO. 848, *supra* note 13, at 3, 5.

groundwater aquifers and have intervening soils which would freely allow liquid wastes to escape into groundwater.¹¹²

The EPA determined that between 32,000 and 50,000 hazardous waste disposal sites existed in the United States and that many of these posed a serious health risk to the public.¹¹³ For the first time, the EPA and Congress became painfully aware of the magnitude of the problem confronting the United States.

These studies, combined with pressure from an outraged public, spurred Congress to action.¹¹⁴ Congress initially

¹¹² *Id.*

¹¹³ H.R. REP. NO. 1016, *supra* note 100, at 18-19, reprinted in 1980 U.S.C.C.A.N. 6119, 6120; Elizabeth A. Glass, *The Modern Snake in the Grass: An Examination of Real Estate & Commercial Liability Under Superfund and Sara and Suggested Guidelines for the Practitioner*, 14 B.C. ENVTL. AFF. L. REV. 381, 383 (1987).

Some members of Congress criticized the results of these studies as "sensationalism." McCarthy, *supra* note 49, at 1170 n.2 (citing 126 CONG. REC. H33,423 (daily ed. Dec. 10, 1980) (remarks of Rep. Crane); *id.* H26,231-32 (daily ed. Sept. 18, 1980) (remarks of Rep. Jeffries). They believed, somewhat naively, that such incidents were the "exception and not the rule."

¹¹⁴ Alderman, *supra* note 67, at 312-13 & n.7; Giesbar, *supra* note 100, at 1297 & n.1 (citing S. REP. NO. 848, *supra* note 13, at 7, 8 (noting that the Love Canal tragedy "paints the clearest picture of just how serious the problems involving toxic chemicals can be")); 125 CONG. REC. 13,248-50 (1979) (statement of Sen. Bumpers); S. REP. NO. 848, *supra* note 13, at 8-10 (reprinting *Love Canal, U.S.A.*, N.Y. TIMES, Jan. 21, 1979, § 6 (Magazine), at 23) (indicating that the New York

recognized, however, that existing regulations were "ill-equipped to address the problem."¹¹⁵ The RCRA had tied the

Times story on the Love Canal incident "was incorporated into the record of the CERCLA debates"). One of the proposed Senate bills, S. 1480, contained language that would have compensated the victims of the Love Canal tragedy for the medical costs that they incurred. Frank P. Grad, A *Legislative History of the Comprehensive Environmental Response, Compensation and Liability ("Superfund") Act*, 8 COLUM. J. ENVTL. L. 1, 7-8 (1982).

¹¹⁵ See Giesbar, *supra* note 100, at 1297-98 & n.6 (citing *Amoco Oil v. Borden*, 889 F.2d 664, 667 (5th Cir. 1989) (stating that CERCLA was enacted to "fill the gaps" left in the RCRA statute); *Bulk Distrib. Ctrs., Inc. v. Monsanto Co.*, 589 F. Supp. 1437, 1441 (S.D. Fla. 1984) (describing RCRA as inadequate to regulate the cleanup of hazardous waste sites and stating that CERCLA picked up where RCRA left off); *United States v. Northeastern Pharmaceutical & Chem. Co.*, 579 F. Supp. 823, 839 (W.D. Mo. 1984) (noting that it was the "inadequacies resulting from RCRA's lack of applicability to inactive and abandoned waste disposal sites that prompted the passage of CERCLA"), *aff'd in relevant part*, 810 F.2d 726, 734 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987)). See also OVERSIGHT AND INVESTIGATIONS SUBCOMM. OF THE HOUSE COMM. ON INTERSTATE AND FOREIGN COMMERCE, 96TH CONG., 1ST SESS., REPORT ON HAZARDOUS WASTE DISPOSAL 7 (Comm. Print 1979) (listing the deficiencies that the subcommittee found with the RCRA: (1) prospective only; (2) no subpoena power; (3) no requirement to reveal existence of, or monitor for releases from, inactive waste disposal sites; (4) inadequate funding for state waste programs.).

With regard to pre-existing hazardous waste disposal sites, to say that "gaps" existed in the RCRA's language and that the EPA's enforcement of the RCRA was dismal would be an understatement. The RCRA severely limited the EPA's ability to require cleanups at hazardous waste sites. See *infra* note 116 and accompanying text (additional discussion). As for the EPA, Congress had tasked it in the RCRA to develop national standards governing hazardous waste disposal. Congress gave the EPA 18 months to create these standards. Three years later, at the time of congressional hearings concerning the hazardous waste issue, the EPA had yet to promulgate any standards. Eckhardt, *supra* note 64, at 255.

Moreover, in part as a result of the EPA's failure to meet deadlines, Congress "severely criticized EPA regulations and policy under both RCRA and CERCLA." *Developments, supra* note 50, at 1474 & nn.48-49 (citing H.R. REP. No. 198, 98th Cong.,

EPA's hands by limiting its power to compel the clean up of disposal sites to those sites presenting an "imminent hazard to health or the environment."¹¹⁶ Otherwise, the EPA could only regulate the disposal of hazardous waste occurring subsequent to enactment of the RCRA. Neither the EPA nor any other agency of the federal government had statutory or regulatory authority to conduct cleanups on contaminated sites.¹¹⁷

Thus, Congress had to consider legislation that addressed both responsibility for cleaning up the sites and funding to

2d Sess. 19-20, 34, reprinted in 1984 U.S.C.C.A.N. 5576, 5578-79, 5593 (criticizing EPA's slow progress in issuing waste facility permits under RCRA, terming the Agency's enforcement efforts "inadequate," and noting that EPA "has not been able to comply with past statutory mandates and timetables, not just for RCRA, but for virtually all of its programs")).

¹¹⁶ 42 U.S.C. § 6903. See Eckhardt, *supra* note 64, at 255; Healy, *supra* note 102, at 69 ("Congress concluded that then-existing statutory authorities were inadequate because they did not allow for an immediate and large-scale response to the dangers posed by hazardous waste sites, particularly abandoned sites."); *id.* n.10 (citing 126 CONG. REC. H26,338 (1980) (statement of Rep. Florio) ("existing statutes are inadequate to cope with the inactive waste site problem. Both funds and emergency response authority to clean up problem chemical dumps are lacking under current law.")).

¹¹⁷ Eckhardt, *supra* note 64, at 255 ("statutory authority was needed first to permit the government to enter and clean up dumpsites if their owners or former users would not do so, and then to charge the miscreants with the cost of clean-up"). Eckhardt also notes that "an even greater obstacle to abatement of potential danger from hazardous waste sites has been the lack of money . . .". *Id.*

accomplish the cleanups.¹¹⁸ It took Congress almost three years,¹¹⁹ as it experienced great difficulty arriving at a consensus on what legislation would properly address the problem.¹²⁰ The result was the CERCLA.¹²¹

¹¹⁸ Giesbar, *supra* note 100, at 1298; Richard C. Belthoff, Jr., *Private Cost Recovery Actions Under Section 107 of CERCLA*, 11 COLUM. J. ENVTL. L. 141, 142 (1986) (indicating again that Congress's intent in designing CERCLA was to address the gaps in the RCRA).

¹¹⁹ Grad, *supra* note 114, at 1 (stating "[a]lthough Congress had worked on 'Superfund' toxic and hazardous waste clean-up bills and on parallel oil spill bills for over three years, the actual bill which became law had virtually no legislative history at all") (citation omitted) (emphasis added).

Congress had considered many bills during this three-year period, especially in the 95th Congress, but had enacted none of them. See *id.* at 1-2 & n.3 (indicating that the Senate had considered "S. 121, 182, 687, 1057, 1187, 2083, 95th Cong., 1st Sess. (1977)," and that the House had considered "H.R. 776, 1827, 1900, 2364, 3038, 3134, 3691, 3926, 4570, 6213, 6803, 9616, 95th Cong., 1st Sess. (1977)"). The 96th Congress, after considering numerous bills, finally enacted the CERCLA.

¹²⁰ For a thorough discussion of the complex process that Congress followed to enact legislation in this area, see Grad, *supra* note 114, at 1; Eckhardt, *supra* note 64, at 253 (the author of this article was the Chairman of the House Oversight and Investigations Subcommittee of the Interstate and Foreign Commerce Committee, before which the original piece of legislation that finally emerged from the process was introduced); 3 ENVTL. L. INST., *SUPERFUND: A LEGISLATIVE HISTORY* 163 (1982); see also Tom Bayko & Paul A. Share, *Stormy Weather on Superfund Front Forecast as "Hurricane SARA" Hits*, NAT'L L.J., Feb. 16, 1987, at 24 ("Although there was widespread agreement on the urgent need for funds and authority to clean up existing hazardous-waste sites, Congress was badly divided on how to accomplish this task."). *Id.*

¹²¹ The CERCLA is alternatively known as the "Superfund," a name which derives from the hazardous substance response cost fund "initially used as an immediate source of funds to pay for cleanup of dangerous sites." Birg, *supra* note 107, at n.2. See *infra* notes 131-35 and accompanying text (discussing

Upon its enactment, legislators and commentators alike identified CERCLA as the "missing link" in the RCRA's cradle to grave regulatory scheme for hazardous wastes.¹²² The act finally confronted the increasing dangers posed by disposal sites¹²³--especially those that former owners and operators had abandoned.¹²⁴ While not perfect,¹²⁵ the CERCLA finally closed the gaping hole that the RCRA had left for those hazardous wastes generated prior to the RCRA's enactment in 1976.¹²⁶

the fund in greater detail). See WILLIAM TUCKER, *PROGRESS AND PRIVILEGE* (1982) (providing a detailed discussion of the origins of the CERCLA).

¹²² Birg, *supra* note 107, at 772-73 & n.4 (citing H.R. REP. NO. 1016, *supra* note 100, at 17, reprinted in 1980 U.S.C.C.A.N. at 6120). Congress's intent was to complete a "broad statutory program of environmental protection" with the CERCLA. The existing statutes comprising this program included the RCRA, the CWA, and the CAA. *Id.* at 772 & 774 n.3.

¹²³ Giesbar, *supra* note 100, at 1298 & n.8 (citing *United States v. Reilly Tar & Chem. Corp.*, 546 F. Supp. 1100, 1112 (D. Minn. 1982) (stating that the CERCLA was intended to provide the "tools necessary for prompt and effective response to problems of national magnitude resulting from hazardous waste disposal"))).

¹²⁴ See Enoch, *supra* note 97, at 660 (noting that many of the people responsible for creating these waste disposal sites had abandoned them); see also Dower, *supra* note 100, at 169 (indicating that abandoned waste sites made it particularly difficult to identify those responsible for the cleanup).

¹²⁵ See *infra* notes 169-79 and accompanying text (detailed discussion of the CERCLA's deficiencies).

¹²⁶ See Grad, *supra* note 114, at 2. Grad states that

While deficient in many respects, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 . . . together with the hazardous waste subtitle (subtitle C) of the Resource Conservation and Recovery Act of 1976 . . . which was amended and

2. *The CERCLA Defined*--What does the CERCLA say? In essence, it directs that the nation's hazardous waste disposal sites *must* be cleaned up promptly¹²⁷ and provides the process¹²⁸

reaffirmed by the same congressional committees during the same session of Congress, *form a sufficient authorization to begin the cleanup of old hazardous waste sites* and to avoid the consequences of new hazardous waste spills, for the protection of health and the environment.

Id. (citations omitted) (emphasis added).

Grad also indicates that "CERCLA picks up where RCRA leaves off, i.e., when untoward emergencies occur, or when spills occur at current or no longer active sites, and by making provisions for protection after a site has been closed." *Id.* at 35-36. (citations omitted). See also *Developments*, *supra* note 50, at 1471 ("RCRA and CERCLA together provide extensive regulation of the generation, transportation, storage, disposal, and cleanup of hazardous wastes.").

¹²⁷ Pursuant to the CERCLA, these cleanups are effected through "response actions." 42 U.S.C. § 9604. The act provides for two types of response actions: removal actions, or short-term procedures designed to address a release or threat of imminent release; and remedial actions, or long-term actions, designed to accomplish a permanent clean up of the hazardous waste.

¹²⁸ The CERCLA grants the President the authority, in consultation with the states, to take any action deemed "necessary to protect the public health or welfare of the environment" in response to the actual or threatened release of "hazardous substances, pollutants, or contaminants." *Id.* § 9604(a)(1). However, President Reagan delegated virtually all of this authority to executive agencies like the EPA. See Exec. Order No. 12,316, 3 C.F.R. 168 (1981), reprinted in 1981 U.S.C.C.A.N. B70.

The EPA is responsible for the implementation and administration of the CERCLA. However, unlike the RCRA, the CERCLA does not provide for the EPA to delegate this authority to the states. The EPA must implement the CERCLA consistent with the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), which is located at 40 C.F.R. pt. 300. The NCP establishes procedures and standards for response actions. 42 U.S.C. § 9605(a). As such, costs incurred, and

by which such cleanups should occur.¹²⁹ Specifically, the CERCLA grants the EPA the power "to respond to releases of hazardous waste from inactive hazardous waste sites which endanger public health."¹³⁰

To do this, the CERCLA created a \$1.6 billion fund to be

the clean-up standards to be achieved, must be consistent with the NCP.

¹²⁹ "An underlying tenet of CERCLA is that the polluter should pay." Enoch, *supra* note 97, at 62 & n.31 (citing *United States v. Fleet Factors, Corp.*, 901 F.2d 1550 (11th Cir. 1990), *cert. denied*, 111 S. Ct. 752 (1991)) (also citing *Florida Power & Light Co. v. Allis Chalmers Corp.*, 893 F.2d 1313, 1316 (11th Cir. 1990), for the proposition that the underlying purpose of CERCLA is to make those responsible for chemical disposal pay for cleanup of hazardous waste)). See *infra* notes 146-59 and accompanying text (more detailed discussion of the "polluter must pay" tenet).

¹³⁰ H.R. REP. No. 1016, *supra* note 100, at 6119. The House Report explains that Congress's intent was to protect human health and the environment by mandating that the CERCLA develop a "national inventory of inactive hazardous waste sites." *Id.* The CERCLA requires the EPA to develop a system for identifying and monitoring these hazardous waste sites. It also requires that the EPA assign inactive waste sites a numerical score under the Hazard Ranking System (HRS) based on the degree of hazard the site poses. If a site achieves a score of 28.5 or higher, the EPA must place that site on the National Priorities List (NPL) which is located at 40 C.F.R., part 300, appendix B. See 42 U.S.C § 9605. These sites then become priorities for long-term remediation, commonly referred to as the "worst first" scenario. See 40 C.F.R. § 300.425.

The NPL lists federal facilities separately from nonfederal facilities. Moreover, only nonfederal facility sites on the NPL are eligible for financing for remedial actions from the Superfund. See *infra* notes 131-35 and accompanying text (describing the fund). 40 C.F.R. § 300.425(b)(1). Thus, DOD facilities do not receive money from the fund.

used for an initial five-year period.¹³¹ This money was designated for the restoration of natural resources and the costs of cleanups on land or in the air or water.¹³² Congress mandated that the money for this fund come from special excise taxes on the petroleum and chemical industries.¹³³ Its intent was that this fund be used only when the EPA was unable to assign responsibility for a cleanup to the individuals or facility that caused the damage.¹³⁴ Congress realized that both the amount of sites and the restoration necessary far

¹³¹ 42 U.S.C. § 9631. (This section was subsequently repealed.). This fund was entitled the "Hazardous Substance Response Trust Fund," commonly referred to as the "Superfund." *Id.* § 9601(11). The CERCLA actually created two funds, not one. The first fund, entitled the "Post-Closure Liability Trust Fund," covers the costs of cleanups at sites closed pursuant to CERCLA regulations. The Superfund covers all other costs associated with the clean up of hazardous wastes. *Id.* §§ 9607(k), 9611(a).

¹³² *Id.* § 9604.

¹³³ *Id.* § 9631. ARBUCKLE, *supra* note 49, at 123. See Eckhardt, *supra* note 64, at 261 (Eckhardt provides a further breakdown of the source of the money for the fund: "[t]he tax on crude oil, petrochemical feed stocks [42 different hazardous feedstock chemicals], and certain inorganic chemicals comprises eighty-seven and one-half percent of the fund. The other twelve and one half-percent would come from general revenue.").

¹³⁴ 42 U.S.C. §§ 9604(a)(1), 9607(a). See Eckhardt, *supra* note 64, at 261. The EPA may use the fund--subject to certain limits--to begin a response action while it pursues criminal or civil suits against PRPs. 42 U.S.C. § 9604(c)(1). When the EPA recovers money from PRPs, it returns it to the fund, replenishing it so that the agency may use it to pay for future response costs at other sites. Congress wanted no delays in the clean-up process while the agency and the PRPs haggled over ultimate responsibility for the site. See also *supra* notes 127-30 and accompanying text (noting that Congress's intent with the CERCLA was to promote immediate responses to hazardous conditions).

exceeded the resources available to the federal government alone.¹³⁵

Congress envisioned that the clean up of hazardous wastes would occur immediately upon the EPA discovering their presence in the environment. Certain events or conditions trigger the CERCLA:

(1) The release or threat of release of a hazardous substance into the environment; or

(2) The release or threat of release of any pollutant or contaminant into the environment that presents an "imminent and substantial danger to the public health or welfare."¹³⁶

¹³⁵ S. REP. NO. 848, *supra* note 13, at 60-63 (indicating that in addition to the money provided by the fund, states and private parties would need to assist in the clean-up efforts). See *Kelley v. Thomas Solvent Co.*, 717 F. Supp. 507, 518 (W.D. Mich. 1979).

¹³⁶ 42 U.S.C. § 9604(a). The term "release" is defined in the CERCLA as "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)." *Id.* § 9601(22). The CERCLA defines the term "hazardous substance" at 42 U.S.C. § 9601(14) as those substances previously defined as hazardous by prior federal statutes. The terms "pollutants or contaminants" are defined in the CERCLA as any substance which after release into the environment causes death, disease, behavioral abnormalities, cancer, genetic mutation, or physiological mutations in any organism or offspring of such organism that is exposed to the substance either directly or indirectly by

On the discovery of a condition which requires remedial action,¹³⁷ the EPA attempts to locate the individuals responsible for producing or disposing of the hazardous substance, referred to in CERCLA parlance as "potentially responsible parties," or PRPs.¹³⁸

If the EPA can identify the PRPs,¹³⁹ the CERCLA authorizes the agency to select one of two options.¹⁴⁰ First, the agency may compel the PRPs to take remedial action to abate the "imminent and substantial" danger, with the oversight of the

ingestion through food chains. Petroleum and natural gas generally are not considered pollutants or contaminants. *Id.* § 9601(33).

¹³⁷ The CERCLA requires the EPA to develop procedures for both discovering and cleaning hazardous waste sites. *Id.* § 9605. The CERCLA mandates that the EPA update the National Contingency Plan, originally developed under the Clean Water Act, "to include a national hazardous substance response plan." *Id.* See Enoch, *supra* note 97, at n.32. The National Contingency Plan is discussed in greater detail *infra* note 260 and accompanying text.

¹³⁸ Giesbar, *supra* note 100, at 1299.

¹³⁹ As many of these hazardous waste sites are abandoned, the EPA has experienced difficulty in ascertaining the PRPs for them. Numerous PRPs are now insolvent, and many sites were the work of "midnight dumpers." See *id.* at 1299-1300; 126 CONG. REC. 26,767 (statement of Rep. Stockman) ("midnight dumpers" will transport hazardous wastes at night to avoid a state's harsh laws); *id.* at 30,942 (Congress was aware of the illegal transportation and disposal of these wastes).

¹⁴⁰ Enoch, *supra* note 97, at 663 & nn.35-36 (citing 42 U.S.C. § 9604 (outlining response authorities available to the EPA)).

EPA.¹⁴¹ The Act grants the agency the power to issue orders requiring the PRPs to conduct and fund the clean up of sites. It also allows the EPA to bring suit to compel the PRPs to perform and pay for such cleanups.¹⁴² Second, the EPA may elect to conduct the remedial action itself,¹⁴³ and subsequently seek indemnification from the PRPs for the cost of these clean-up actions.¹⁴⁴ Moreover, the CERCLA also authorizes private citizens to begin remedial actions to abate an imminent threat and clean up a hazardous waste site. These private citizens then may seek to recoup any money spent on

¹⁴¹ 42 U.S.C. § 9606.

¹⁴² *Id.* § 9606(a). See Enoch, *supra* note 97, at 663 n.36 (stating that "[t]he EPA, after determining that the release or threatened release of hazardous material creates an imminent and substantial danger to public health, welfare or the environment, may secure orders through the local federal district court to force a private cleanup"). 42 U.S.C. § 9606(a). Violation of these court orders may result in fines of up to \$25,000 per day until compliance with the orders. *Id.* § 9606(b); see also Mason, *supra* note 77, at 81 (stating that "[t]he specter of treble damages and fines of up to \$25,000 per day for failure to obey these orders also further the goal" [of encouraging PRPs to assume the responsibility for conducting and funding cleanups]. But see Geoffrey Norman, *Superfund as Godzilla; Al Gore and the EPA Have Created a Monster That Even Sucks Blood out of Socialist Businessmen in Vermont*, AM. SPECTATOR, Nov. 1993, at 3 (Feature section) ("[T]hreats of \$25,000-a-day fines amount to 'encouragement' in getting people to 'agree' to do what the EPA wants done. One witness would call it extortion.")).

¹⁴³ 42 U.S.C. § 9604(a). This section of CERCLA gives the President authority to "act in response to any release or threatened release of a hazardous substance." *Id.*

¹⁴⁴ *Id.* § 9612(c)(3).

such remedial actions from any PRPs.¹⁴⁵

3. "Make the Polluter Pay"--Congress believed that requiring the PRPs to "internalize the costs of haphazard waste disposal" would punish them for aberrant behavior and deter similar conduct in the future.¹⁴⁶ Congress's clear intent, however, was to promote rapid and effective responses to the discovery of conditions that pose hazards to the American public.¹⁴⁷ Toward this end, Congress authorized the

¹⁴⁵ *Id.* § 9607(a)(4)(B). See Bryan, *supra* note 80, at 179 (citing *Prudential Ins. Co. of Am. v. United States Gypsum Co.*, 711 F. Supp. 1244, 1251 (D.N.J. 1989)) which held that:

The statute [CERCLA] embodies a bifurcated scheme to promote the cleanup of hazardous sites, spills, and releases. First, through the creation of Superfund, the federal government is provided with the tools to respond to the growing problems resulting from hazardous waste disposal. Second, the statute also authorizes private parties to institute civil actions to recover the costs involved in the cleanup of hazardous wastes from those responsible for their creation.

Id.

¹⁴⁶ Mason, *supra* note 77, at 79; see Eckhardt, *supra* note 64, at 264, which states:

Legislation, if it is to work, needs an internal impetus to make it work. Sometimes it is possible to convince those affected that it is to their advantage to support a program that will do so. In the long run, it is more important that the flow of hazardous waste be stemmed than that past derelictions be remedied.

Id.

¹⁴⁷ Mason, *supra* note 77, at 77-78 (citing *Chemical Waste Management v. Armstrong World Indus.*, 669 F. Supp. 1285, 1290 n.6 (E.D. Pa. 1987); *Dedham Water Co. v. Cumberland Farms*

Hazardous Substance Response Fund (Superfund) to borrow money from the Treasury until such time as the fund obtained enough money--through the taxing structure of the CERCLA¹⁴⁸--to cover the costs of cleanups.

Again, the CERCLA's most fundamental premise is to "make the polluter pay"¹⁴⁹--that is, to pass on the clean-up bill to the party responsible for the hazard or damage. This is why the CERCLA gives the PRP the choice mentioned above: begin, and fund, the clean-up process itself,¹⁵⁰ or allow the EPA to oversee the cleanup and reimburse the agency for the costs.¹⁵¹

Dairy, 805 F.2d 1074, 1081 (1st Cir. 1986)).

¹⁴⁸ 42 U.S.C. § 9633(c) (repealed 1986); Eckhardt, *supra* note 64, at 261.

¹⁴⁹ See, e.g., *United States v. Reilly Tar & Chem. Corp.*, 546 F. Supp. 1100, 1112 (D. Minn. 1982) ("Congress intended that those responsible for problems caused by the disposal of chemical poisons bear the costs and responsibility for remedying the harmful conditions they created."); see also Mason, *supra* note 77, at 74-75 (citing *Reilly Tar*) ("[o]ne of CERCLA's basic aims, however, was to ensure that PRPs would bear the cost of remedying the toxic dangers that they caused").

¹⁵⁰ 42 U.S.C. § 9606. Mason, *supra* note 77, at 75. The PRP may sue other PRPs to obtain their assistance in paying for the cleanup. 42 U.S.C. § 9613(f). However, this provision did not become effective until the 1986 amendments to the CERCLA, see *infra* notes 180-226 and accompanying text.

¹⁵¹ 42 U.S.C. § 9607. But see Norman, *supra* note 142, at 2, which states:

A trust fund--Superfund--was to be established out of special taxes on petroleum and assorted chemicals. This fund was to be used to clean up sites, after which the polluters would be billed their share of the costs by the EPA. Or, the

The CERCLA identifies four types of PRPs:

(1) Current owners and operators of hazardous waste facilities;¹⁵²

(2) Former owners and operators of hazardous waste facilities (owned or operated at the time of the disposal of any hazardous substances);¹⁵³

(3) Generators;¹⁵⁴ and

polluters could concede responsibility and accomplish the cleanup themselves. This is the preferred course, *since nobody wants to be put in the position of letting the government decide just how much to spend on something when it will be passing the bill along to you.*

Id. (emphasis added).

¹⁵² 42 U.S.C. § 9607(a)(1). Truly "innocent" owners may escape liability by virtue of the innocent landowner defense in the CERCLA. *Id.* § 9607(b); see *infra* note 213 (indicating that one of the changes that the 1986 amendments to the CERCLA made allowed subsequent (current) landowners to prove their innocence). However, the obvious purpose behind holding current owners liable is to avoid the situation where a PRP sells the contaminated site to another to avoid liability. It also avoids creating a windfall for the subsequent purchaser as the price of the land should increase after the cleanup. See Enoch, *supra* note 97, at 64.

¹⁵³ 42 U.S.C. § 9607(a)(2). See *United States v. Fleet Factors Corp.*, 901 F.2d 1550 (11th Cir. 1990), *cert. denied*, 498 U.S. 1046 (1991); *Kelley v. United States Environmental Protection Agency*, 15 F.3d 1100 (D.C. Cir. 1994); see also Enoch, *supra* note 97, at 659 (discussing liability for lenders in the wake of *Fleet Factors*).

¹⁵⁴ Defined as "[a]ny person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of

(4) Transporters.¹⁵⁵

The act holds these four types of responsible parties strictly liable¹⁵⁶ for any and all costs connected with the release of hazardous waste, whether incurred by private citizens or the government.¹⁵⁷ As the CERCLA imposes no limit on costs, except for a \$50 million ceiling on punitive damages,¹⁵⁸ it obviously

hazardous substances owned or possessed by such person, by any other party or entity, at any facility . . . owned or operated by another party or entity and containing such hazardous substances [if the hazardous substances are actually at the facility]." 42 U.S.C. § 9607(a)(3).

¹⁵⁵ *Id.* § 9607(a)(4). Liability is contingent on the transporters having selected the facility that is the subject of the response action.

¹⁵⁶ Note, *Superfund Amendments and Reauthorization Act of 1986: Limiting Judicial Review to the Administrative Record in Cost Recovery Actions by the EPA*, 74 CORNELL L. REV. 1152, 1156-57 (1989) [hereinafter *Limiting Judicial Review*] (citing SUPERFUND AMENDMENTS OF 1985: SEPARATE AND DISSENTING VIEWS, H.R. REP. NO. 253, 99th Cong., 1st Sess. 74 (1985)) ("CERCLA implicitly established a standard of strict liability for potentially responsible parties"). The footnote to this passage indicates that "many courts have held that the CERCLA imposes strict liability on all parties falling within the terms of section 107(a)(1-4)." *Id.* at n.31 (citing *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1042 (2d Cir. 1985); *United States v. Northeastern Pharmaceutical & Chem. Co. (NEPACCO)*, 579 F. Supp. 823, 844 (W.D. Mo. 1984), *rev'd on other grounds*, 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987)). See *infra* notes 160-66 and accompanying text (detailed discussion of liability under the CERCLA).

¹⁵⁷ The CERCLA requires only that these costs be "consistent with the National Contingency Plan." See 42 U.S.C. § 9607(a)(4)(A)-(D); see also *United States v. NEPACCO*, 579 F.2d at 823.

¹⁵⁸ 42 U.S.C. § 9607(c)(1)(D).

exposes these PRPs to extensive liability.¹⁵⁹

4. *Liability Provisions*--What is also obvious is that the CERCLA has cast its liability net quite wide. Congress created broad categories of liability, "to the extent that total liability for the costs of cleaning up a particular site can be imposed on anyone or any company that has ever dumped hazardous substances at a site--regardless of how much or how little a given party actually dumped."¹⁶⁰ Moreover, liability attaches whether or not the substance the party disposed of at the facility is even part of the threat.

The liability of PRPs under the CERCLA is joint and

¹⁵⁹ "CERCLA establishes a liability scheme that is strict, retroactive, and joint and several, thus raising daunting cost concerns for those subject to its mandate." Van S. Katzman, *The Waste of War: Government CERCLA Liability at World War II Facilities*, 79 VA. L. REV. 1191, 1192-3 & nn.13-14 (citing *Review of the Hazardous Substance Superfund: Hearings Before the Subcomm. on Oversight of the House Comm. on Ways and Means*, 102d Cong., 2d Sess. 35 (1992) (statement of Peter G. Guerrero) (also noting that the "average cost of a cleanup at a Superfund site is \$25 million. In June of 1992, the EPA had estimated that it would cost a total of \$40 billion to clean up just those sites on the Superfund cleanup list.")).

¹⁶⁰ Sandra Steffenson, *Cleaning Up Hazardous Waste: Some Full-Text Help for Environmental Law Attorneys*, 4 DOCUMENT DELIVERY WORLD (Sept. 1993) (This article is actually a review of a database called "RODScan," a full-text retrieval system containing almost every Record of Decision (ROD) issued by the EPA. A ROD is a final decision from the EPA detailing the strategy for cleaning up a hazardous waste site or the agency's final decision on an EIS under the NEPA.).

several,¹⁶¹ unless one can prove that the damage can somehow be apportioned.¹⁶² The PRPs are collectively or individually liable for the full amount of the costs associated with the cleanup. Again, liability under the CERCLA is also strict. Thus, there are no good-faith arguments nor defenses to liability.¹⁶³ Congress's intent was that courts not consider most defenses that otherwise would be effective in releasing a party from liability. Accordingly, claims by PRPs that they took good-faith efforts to preclude releases, that they exercised due care in the performance of their acts, that they were not at fault,¹⁶⁴ or that their acts were lawful when they performed them became inconsequential. The CERCLA provides only three defenses--acts of God, war, or a third party (or

¹⁶¹ The CERCLA does not mandate joint and several liability but, rather, permits it. See *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 810-11 (S.D. Ohio 1983); *United States v. Monsanto*, 858 F.2d 160, 171 (4th Cir. 1988), cert. denied, 490 U.S. 1106 (1989); *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1042 (2d Cir. 1985). See also Enoch, *supra* note 97, at 667 & n.73 (providing an interesting discussion of how CERCLA arrived at its standard of liability).

¹⁶² *United States v. Stringfellow*, 20 ERC 1905, 1910 (C.D. Cal. 1984).

¹⁶³ See *Monsanto*, 858 F.2d at 167; *Shore Realty*, 759 F.2d at 1042; *United States v. Northeastern Pharmaceutical & Chem. Co.*, 579 F.2d 823 (W.D. Mo. 1984), *aff'd in relevant part*, 810 F.2d 726, 734 (8th Cir. 1986), cert. denied, 484 U.S. 848 (1987).

¹⁶⁴ "The act imposes strict liability for cleanup costs in a truly draconian fashion--liability is imposed without regard to fault." Sweeney, *supra* note 46, at 68.

any combination of the three).¹⁶⁵ As such, the only consideration appears to be whether a party falls into one of the four groups of PRPs.¹⁶⁶ If it does, it is liable.

5. *The CERCLA's Underlying Purpose*--Congress wanted to ensure that those responsible for creating the toxic nightmares nationwide did not escape liability. The CERCLA's definition of PRPs, and the manner in which courts have interpreted that definition, is extremely broad.¹⁶⁷ Conversely, the CERCLA's list of defenses to liability is "short and sweet," and the courts' construction of these defenses has been extremely narrow.¹⁶⁸

¹⁶⁵ 42 U.S.C. § 9607(b). See, e.g., *Violet v. Picillo*, 648 F. Supp. 1283 (D. R.I. 1986) (PRP must prove that it exercised due care and took all necessary and reasonable precautions against the acts of the third party). Moreover, the acts of a third party must not be directly or indirectly contractually related to the PRP; see also *Eckhardt*, *supra* note 64, at 262. The CERCLA places on the PRP the burden of proving each element of a defense by a preponderance of the evidence.

¹⁶⁶ As previously referred to, the CERCLA, as a result of subsequent amendments, now provides for an "innocent landowner" defense as the result of the addition of the definition of the term "contractual relationship." 42 U.S.C. § 9601(35)(a).

¹⁶⁷ See *Enoch*, *supra* note 97, at 667-68 (arguing that lenders suffer as the result of Congress's wide liability net); see also *Developments*, *supra* note 50, at 1465-66 ("[t]he courts have enhanced the statute's radicalism in subsequent interpretation, finding in its language and legislative history a congressional intent to adopt unusually broad and highly controversial standards of liability").

¹⁶⁸ See *United States v. Stringfellow*, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987) (holding that torrential rainfalls causing lagoons full of toxic waste to overflow "were not the

To understand why Congress was so determined to prevent any PRPs from escaping liability, one need only remember the context in which the CERCLA was enacted--the hysteria of toxic waste nightmares like the Love Canal. The public was demanding legislative protection from environmental hazards. No one in America wanted hazardous chemicals seeping into their drinking water. Congress recognized the enormity of the clean-up task that lay ahead--and that the nation needed curative legislation without delay.

6. *The CERCLA's Drawbacks*--With this dire need for new legislation as a backdrop, Congress enacted the statute with the "high-sounding title."¹⁶⁹ Shortly after its passage, however, the chairman of the House subcommittee that forwarded the bill which ultimately passed stated

The act is not comprehensive. It does not compensate victims as was envisioned originally by the Senate, and it leaves liability largely to common law. Its worst aspect, however, is that it responds to environmental degradation with a fund that is only about nine percent of the figure the

kind of 'exceptional' natural phenomena to which the narrow act of God defense . . . applies").

¹⁶⁹ "The Comprehensive Environmental Response, Compensation and Liability Act of 1980." Eckhardt, *supra* note 64, at 253.

EPA estimates it would take in order to clean up all hazardous waste posing a danger to public health and the environment.¹⁷⁰

Although some commentators might argue that the lack of funding was not the CERCLA's worst aspect, many would agree with the former chairman that the CERCLA was deficient in many respects.¹⁷¹ Legal commentators were not the only ones unhappy with the new legislation. Both courts and litigants disparaged the act as vague and ambiguous¹⁷² and "not the

¹⁷⁰ *Id.* at 253-54 (citing H.R. REP. No. 1016, *supra* note 100).

¹⁷¹ See Grad, *supra* note 114, at 2 (referring to "a hastily assembled bill and a fragmented legislative history"); Enoch, *supra* note 97, at 660 (stating that "[b]ecause of Congress's haste and a compromise atmosphere, CERCLA arrived as a complex piece of legislation, filled with vague terms and little legislative history"); see also Giesbar, *supra* note 100, at 1299, which indicates that "the bill was hastily assembled, the legislative history patchwork, and the language vague Because of the ambiguity and contradictions within the statute, critics have dubbed CERCLA the 'full employment act for lawyers.'" (citations omitted) (quoting David E. Jones & Kyle E. McSlarrow, . . . *But Were Afraid to Ask: Superfund Case Law, 1981-1989*, 19 *Envtl. L. Rep.* (Envtl. L. Inst.) 10,430 (Oct. 1989)); Bayko & Share, *supra* note 120, at 24 ("Even before its passage in December 1980, the Comprehensive Environmental Response, Compensation and Liability Act . . . was highly controversial." (citation omitted)).

¹⁷² See Giesbar, *supra* note 100, at 1299 (citing *United States v. Mottolo*, 605 F. Supp. 898, 902 (D.N.H. 1985) (indicating that "CERCLA has acquired a well-deserved notoriety for vaguely-drafted provisions and an indefinite, if not contradictory, legislative history"); *City of Philadelphia v. Stepan Chem. Co.*, 544 F. Supp. 1135, 1142 (E.D. Pa. 1982) (characterizing the CERCLA as a "severely diminished piece of compromise legislation from which a number of significant features were deleted," thus making it difficult to

paradigm of clarity or precision."¹⁷³

The reasons for the CERCLA's inadequacies are easy to understand. In December 1980, Congress had been haggling over environmental legislation for more than two years, and the end of the legislative term was fast approaching. Ronald Reagan had recently defeated Jimmy Carter in the presidential election, and was to take office in January.¹⁷⁴ This statute represented the final opportunity to enact environmental legislation on toxic waste sites prior to Reagan entering office.¹⁷⁵ As such, Congress agreed to numerous compromises in

interpret); see also *Amoco Oil v. Borden*, 889 F.2d 664, 667 (5th Cir. 1989) (criticizing the CERCLA's legislative history as incomplete and ambiguous); *Smith Land & Improvement Corp. v. Celotex Corp.*, 851 F.2d 86, 91 (3d Cir. 1988), cert. denied, 488 U.S. 1029 (1989) (same).

¹⁷³ *Santa Fe Pacific Realty Corp. v. United States*, 780 F. Supp. 687, 695 n.4 (E.D. Cal. 1991).

¹⁷⁴ See *Developments, supra* note 50, at 1465 (noting that "on the heels of the greatest conservative landslide in a generation, Congress enacted perhaps the most radical environmental statute in American history") (citation omitted). The article also notes that "Congress passed the statute during a 'lame duck' administration, [prompting] former EPA Administrator Douglas M. Costle [to] term CERCLA's enactment 'an extraordinary action.'" *Id.* at n.1 (citing 16 *Env't Rep. (BNA)* 7 (May 3, 1985) ("Current Developments" section)).

¹⁷⁵ Congress was concerned about the change in attitude toward environmental considerations that the Reagan Administration would bring to office. It was fearful that legislation addressing environmental concerns, if they failed to enact it immediately, would never be approved by the incoming administration. See *Reitze, supra* note 65, at 120 (noting that "[w]hen 1981 brought to power an administration that was committed to anti-environmental policies, the people interested in environmental protection fought to keep what

an effort to push the legislation through as expeditiously as possible.¹⁷⁶ Congress recognized that the CERCLA was far from perfect,¹⁷⁷ but adopted a "something is better than nothing" attitude.¹⁷⁸ It also recognized that changes to the law would

they already had").

¹⁷⁶ See Enoch, *supra* note 97, at 660 ("A lame-duck Congress passed CERCLA as compromise legislation in the last hours of the Carter Administration."); Deason, *supra* note 110, at 555-56.

¹⁷⁷ "The legislation that did pass, with all of its inadequacies, was the best that could be done at the time." Grad, *supra* note 114, at 2. See Brian O. Dolan, *Misconceptions of Contractual Indemnification Against CERCLA Liability: Judicial Abrogation of the Freedom to Contract*, 42 CATH. U. L. REV. 179, 181 & n.11 (1992) (noting that Congress passed the bill "despite allegations that the bill contained numerous defects and inconsistencies"). The note lists various members of Congress and their objections to the bill.

¹⁷⁸ See Dolan, *supra* note 177, at 181 (stating that "[s]everal of the bill's supporters even expressed misgivings."); n.13 (citing 126 CONG. REC. 31,970 (1980) (statement of Rep. Breaux) (explaining that while the bill was not perfect, it was better than nothing); *id.* at 31,972 (statement of Rep. Gibbons) (suggesting "this is not a full loaf, but let us take what we can get"); *id.* at 31,979 (statement of Rep. Clinger) (stating that he supported the bill "flawed though it may be, because I am convinced that this is the last train that is going to leave the station in this session of Congress. I think that it is absolutely imperative that we be on that train."). See also Grad, *supra* note 114, at 1, who states:

The bill which became law was hurriedly put together by a bipartisan leadership group of senators . . . introduced, and passed by the Senate in lieu of all other pending measures on the subject. It was then placed before the House, in the form of a Senate amendment of the earlier House bill. It was considered on December 3, 1980, in the closing days of the lame duck session of an outgoing Congress. It was considered and passed, after very limited debate, under a suspension of the rules, in a situation which allowed for no amendments. Faced with a complicated bill on a take-it-or-leave-it

be necessary in the coming years.¹⁷⁹

E. The Superfund Amendments and Reauthorization Act of 1986

1. *Why the SARA was Necessary*--As Congress expected, the EPA's progress in cleaning up hazardous waste sites in the years following the CERCLA's enactment proved to be modest at best. Congress recognized the need to address various omissions and errors in the CERCLA, as well as the need for greater financing of the trust fund to properly confront the increasing number of sites nationwide.¹⁸⁰ Consequently, Congress sought to amend the CERCLA in the mid-1980s. It sought these amendments in part because the CERCLA's taxing and funding authority was scheduled to expire on September 30,

basis, the House took it, groaning all the way.

¹⁷⁹ Prior to beginning a detailed discussion of amendments to the CERCLA, it is important to note that Congress's dissatisfaction with the CERCLA initially led to amendments to the RCRA in 1984. These amendments were collectively known as the Hazardous and Solid Waste Act of 1984 (HSWA), § 201(a), Pub. L. No. 98-616, 98 Stat. 3221 (1984) (codified at 42 U.S.C. § 6924(d)(1)). The RCRA actually was an amendment to the Solid Waste Disposal Act of 1965 (SWDA), Pub. L. No. 89-272, tit. II, 79 Stat. 992 (1965) (codified as amended at 42 U.S.C. §§ 6901-6987 (1982)). See *infra* notes 349-56 and accompanying text (discussing the HSWA in greater detail).

¹⁸⁰ Bayko & Share, *supra* note 120, at 24. Congress recognized that before enacting the CERCLA, it had erroneously believed that acceptable cleanups could be accomplished by "scraping a few inches of soil off the ground." H.R. REP. No. 253, *supra* note 156, at 54.

1985,¹⁸¹ and in part because it was discouraged by the sluggish rate of completed cleanups.¹⁸² Thus began another long and arduous political struggle in Congress over environmental legislation.¹⁸³

In the debates concerning the potential amendments to the CERCLA, Congress's criticism of the EPA was apparent.¹⁸⁴ It

¹⁸¹ 42 U.S.C. § 9631 (repealed 1986); Omnibus Reconciliation Act of 1990, Pub. L. No. 101-508, 104 Stat. 1388; President Reagan's State of the Union Address, 20 WEEKLY COMP. PRES. DOC. 87 (Jan. 30, 1984).

¹⁸² See Mason, *supra* note 77, at 79 ("During the first five years of the Superfund program, the government and PRPs completed long-term remedial measures at only ten sites across the entire United States. Dismayed by the slow pace of these cleanups, Congress amended the CERCLA by enacting the SARA in October 1986."); *Developments*, *supra* note 50, at 1474 (stating that "[c]leanup of hazardous waste sites has proceeded slowly"). Only 10 of 538 sites on the EPA's NPL at the end of 1984 had been cleaned up, and cleanups were in progress at only 19% of the sites. The EPA had yet to take any action at 236 sites, or 44% of the total NPL sites. Moreover, the agency had recommended adding 248 more sites to the NPL, and countless others existed that the agency had not discovered yet. *Id.* at 1474 n.47 (citing GENERAL ACCT. OFF., STATUS OF EPA'S REMEDIAL CLEANUP EFFORTS 2-3 (Mar. 20, 1985)).

¹⁸³ See Bayko & Share, *supra* note 120, at 24 ("After a long and highly political battle in Congress, the Superfund Amendments and Reauthorization Act (SARA) became effective last Oct. 17.").

¹⁸⁴ See *Developments*, *supra* note 50, at 1474 & n.49 (citing H.R. REP. NO. 198, 98th Cong., 2d Sess. 19-20, 34, reprinted in 1984 U.S.C.C.A.N. 5576, 5578-79, 5593 (criticizing the EPA's slow progress in issuing waste facility permits under RCRA, terming the Agency's enforcement efforts "inadequate," and noting that the EPA "has not been able to comply with past statutory mandates and timetables, not just for RCRA, but for virtually all of its programs"); H.R. REP. NO. 253, *supra* note 156, at 257 (terming clean-up efforts under CERCLA "tragically disappointing and ineffective" and placing responsibility, in part, on the EPA's "propensity to

saw the EPA as primarily responsible for the delay in the clean-up process,¹⁸⁵ as well as the tremendous increase in the overall costs of each cleanup.¹⁸⁶ To make matters worse, a scandal involving the EPA erupted during these initial years of the CERCLA, resulting in the resignation of numerous top agency officials.¹⁸⁷ These events caused Congress to lose faith in the ability of the EPA to implement the CERCLA without strict guidelines from Congress.¹⁸⁸

Congress also recognized, however, that the EPA had experienced much of this difficulty as the direct result of

let private parties escape their fair legal liability for the damages caused by Superfund sites").

¹⁸⁵ See SENATE FINANCE COMM. REP., S. REP. NO. 73, 99th Cong., 1st Sess. 12 (1985) [hereinafter S. REP. NO. 73].

¹⁸⁶ Congress learned that during the CERCLA's first five years of operation, the average cost for the clean up of a site had increased approximately six million dollars. SENATE COMM. ON ENV'T AND PUBLIC WORKS, SUPERFUND IMPROVEMENT ACT OF 1985, REPORT TO ACCOMPANY S. 51, TOGETHER WITH ADDITIONAL AND MINORITY VIEWS, S. REP. NO. 11, 99th Cong., 1st Sess. 2 (1985).

¹⁸⁷ See *Developments, supra* note 50, at 1474 n.50; *Burford Resigns from EPA Post Under Fire*, 1983 CONG. Q. ALMANAC 332 (1983). The scandal revolved around allegations of diversion of Superfund money by EPA officials. The scandal and resulting investigation led to the eventual firing and subsequent imprisonment of Rita Lavelle, the EPA's top administrator for hazardous waste programs, and the resignation of Anne Burford, the EPA Administrator, and more than 20 high-level EPA officials. See also N.Y. TIMES, Mar. 10, 1983, at A1; N.Y. TIMES, Dec. 2, 1983, at A1; H.R. REP. NO. 253, *supra* note 156, at 55, reprinted in U.S.C.C.A.N. at 2837.

¹⁸⁸ See S. REP. NO. 73, *supra* note 185, at 12.

significant problems with the Act.¹⁸⁹ Accordingly, it believed that by enacting the necessary changes to the CERCLA,¹⁹⁰ and providing the trust with an infusion of funding, the CERCLA could operate effectively to combat the growing hazards posed by toxic waste sites.¹⁹¹ Once Congress was able to address all of its concerns, the Superfund Amendments and Reauthorization

¹⁸⁹ See Whitney, *supra* note 56, at 188 (stating that "the circumstances of its [CERCLA] enactment produced important omissions as well as textual defects which impaired its effective and prompt implementation . . . such as provisions setting cleanup goals and governing selection of remedies to achieve these goals"); Mason, *supra* note 77, at n.40 (citing Ellen J. Garber, *Federal Common Law of Contribution Under the 1986 CERCLA Amendments*, 14 *ECOLOGY L. Q.* 365, 373 (1987) (indicating that the "floor debates leading to the Superfund program's reauthorization reflected Congress's awareness that the CERCLA contained significant gaps, and that, as a result, the EPA had encountered problems during its six years of enforcing the law."); *Developments*, *supra* note 50, at 1474 n.51 (citing H.R. REP. No. 253, *supra* note 156, at 55). A "committee report on the proposed CERCLA amendments recently passed by the House observed" the following:

The resources given to the EPA were simply inadequate to fulfill the promises that were made to clean up abandoned hazardous wastes in this country. With political pressure on EPA to treat every site discovered as a high priority, EPA was virtually guaranteed to fail from the moment CERCLA passed in 1980.

Id. at 55.

¹⁹⁰ See Mason, *supra* note 77, at 75 (stating that the "SARA is an attempt to overhaul the CERCLA while preserving the features that made the CERCLA effective. It retains the CERCLA's basic structure and goals, but makes several major changes in the original law."); see also *infra* notes 194-226 and accompanying text (detailed discussion of the changes the SARA made to the CERCLA).

¹⁹¹ See Bayko & Share, *supra* note 120, at 25.

Act of 1986¹⁹² (SARA) was signed into law, and took effect on October 17, 1986.¹⁹³

2. The SARA Defined--

a. *Increased Funding and New Schedules*--The SARA extended the Superfund program for five additional years and expanded its resources markedly. It increased the trust fund more than five times, from its original \$1.6 billion figure to an \$8.5 billion amount for the five years following the SARA's enactment.¹⁹⁴ The Act also provided schedules mandating the completion of certain phases of response activities "to the maximum extent practicable."¹⁹⁵ The SARA required the EPA to

¹⁹² Pub. L. No. 99-499, 100 Stat. 1613 (codified in scattered sections of 26 U.S.C. and 42 U.S.C.).

¹⁹³ See *Reagan Signs Superfund Bill*, WASH. POST, Oct. 18, 1986, at A1.

¹⁹⁴ 42 U.S.C. § 9611(a). The CERCLA originally created the "Hazardous Substance Response Trust Fund." 42 U.S.C. § 9631. The SARA modified the name of the trust fund to the "Hazardous Substance Superfund," as the fund was commonly referred to, prior to the enactment of the SARA, as the "Superfund." 26 U.S.C. § 9507(a). See Mason, *supra* note 77, at 79-80 & n.41 (citing Timothy B. Atkeson et al., *An Annotated Legislative History of the Superfund Amendments and Reauthorization Act of 1986 (SARA)*, 16 Env'tl. L. Rep. (Env'tl. L. Inst.) 10,413-14 (1986) (for the remainder of this article, I will refer to the reprinted version of Atkeson's article, which appears in SUPERFUND DESKBOOK 1 (1992) [hereinafter *Annotated Legislative History of SARA*]); see also S. REP. No. 73, *supra* note 185, at 13 (a detailed breakdown of the sources of the \$8.5 billion).

¹⁹⁵ 42 U.S.C. § 9616(a). Bayko & Share, *supra* note 120, at 25.

complete preliminary assessments¹⁹⁶ at all sites listed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)¹⁹⁷ within a little over one year.¹⁹⁸ It further required completion of a site inspection (SI)¹⁹⁹ at all facilities requiring one within just over two years.²⁰⁰ Finally, the SARA compelled the EPA to conduct a final evaluation,²⁰¹ within four years, on all sites

¹⁹⁶ The preliminary assessment is the first phase of the Installation Restoration Program (IRP), designed to identify potential sites with hazardous waste contamination. It involves examination of all readily available information concerning current and former activities of a site. It concentrates on identifying releases of contamination, and the need for any response action. These PAs can take from 18 months to six years to complete. *ISSUES & OPTIONS*, *supra* note 19, at 21.

¹⁹⁷ The Comprehensive Environmental Response, Compensation and Liability Information System, originally known as the Emergency and Remedial Response Information System (ERRIS) is a computerized system used to keep track of those hazardous waste sites eligible for remedial action. To obtain information from the CERCLIS, telephone the CERCLIS hotline at 1-800-424-9346. Henley, *supra* note 74, n.76.

¹⁹⁸ 42 U.S.C. § 9616(a)(1). Congress gave the EPA until January 1, 1988, to complete PAs on all of the sites listed on the CERCLIS as of the date of the SARA's enactment. The PAs would determine if a site inspection was necessary.

¹⁹⁹ *Id.* § 9605(a)(8)(A)-(B), (d). The SI also is part of the first phase of the IRP, designed to identify potential sites with hazardous waste contamination. It involves field reconnaissance, sampling, and analysis. Where possible, individual sources of contamination should be identified by the PA/SI process. See AR 200-2, *supra* note 65, para. 9-7.

²⁰⁰ 42 U.S.C. § 9616(a)(2). The SARA gave the EPA until January 1, 1989, to complete an SI on all those sites at which the preliminary assessment identified such a need.

²⁰¹ Once the EPA is notified of a site on which there has been a release of a hazardous substance in an amount constituting a reportable quantity, see 42 U.S.C. § 9602, the

on the CERCLIS at the time of the SARA's enactment, to determine if the agency should include them on the NPL.²⁰²

Congress also set goals for the commencement of investigations and studies, as well as remedial action, at sites listed on the NPL. The SARA mandated that RI/FSS take place at no less than 275 sites within the first three years after the SARA's enactment.²⁰³ Moreover, the Act required the EPA to commence physical on-site remedial action at 175 sites within the SARA's first three years.²⁰⁴ These were lofty goals for an agency that had completed cleanups at only fifteen sites during the first five years after the CERCLA's enactment. However, Congress's hope was that with increased funding and stricter guidelines concerning the evaluation and

EPA will use the Hazard Ranking System (HRS) to evaluate the site for possible inclusion on the NPL. Once the EPA places a site on the NPL, a Remedial Investigation/Feasibility Study (RI/FS) must commence within six months of the date of listing. *Id.* § 9620(e)(1). An RI/FS is the phase of the IRP at which the nature and extent of contamination of a hazardous waste site are determined and clean-up strategies are analyzed. *Id.*

²⁰² *Id.* § 9616(b). The SARA required the EPA to conduct these final evaluations, in accordance with the NCP, within four years of the SARA's enactment on all sites listed on the CERCLIS at the time of enactment, or within four years of listing if it occurs after the SARA's enactment.

²⁰³ *Id.* § 9616(d). If the EPA could not meet this deadline, Congress wanted the RI/FSS conducted at an additional 175 sites within four years, and at another 200 sites within five years, for a total of 650 sites within five years of the SARA's enactment. *Id.*

²⁰⁴ *Id.* § 9616(e).

clean-up process, the pace of clean-up activities might improve dramatically.²⁰⁵

b. *New Clean-up Standards*--The most important change brought about by the SARA, aside from the increased funding, was its establishment of new, more detailed clean-up standards designed to answer the fundamental question, "How clean is clean?"²⁰⁶ The CERCLA had allowed the EPA to determine these clean-up standards prior to the SARA, requiring only that remedial actions be "cost-effective and consistent with the NCP."²⁰⁷ Now Congress required that the EPA ensure that remedial actions complied with

(1) any standard, requirement, criteria, or

²⁰⁵ See Bayko & Share, *supra* note 120, at 25.

²⁰⁶ 42 U.S.C. § 9621. See also Bayko & Share, *supra* note 120, at 32.

²⁰⁷ 42 U.S.C. § 9604(c)(4) (1982). This is another example of Congress's lack of confidence in the ability of the EPA to manage the Superfund program. See *Annotated Legislative History of SARA*, *supra* note 194, at 9 ("the refusal by many House members to give EPA much discretion on standard setting produced a strong preference for 'permanent' cleanup methods and 'national' cleanup standards based on the requirement that all legally applicable or relevant and appropriate federal (or more stringent state) environmental standards be met") (citations omitted); (citing Representative James J. Florio (D-N.J.), *Congress as Reluctant Regulator: Hazardous Waste Policy in the 1980s*, 3 YALE J. REG. 351 (1986) (arguing that "Congress itself has had to assume the role of regulator, making some of the detailed technical and administrative determinations typically left to the implementing agency" because "Congress is no longer confident that the Environmental Protection Agency (EPA) will exercise such discretion as intended by Congress." (citations omitted)).

limitation under any Federal environmental law . . .

²⁰⁸ or

(2) any promulgated standard, requirement, criteria, or limitation under a State environmental law or facility siting law that is more stringent than any Federal standard . . .²⁰⁹

Congress's purpose in enacting these new provisions was to place greater emphasis on permanent cleanups.²¹⁰ Note, however, that this provision severely restricted the EPA's discretion to determine the appropriate remedial action.²¹¹

²⁰⁸ 42 U.S.C. § 9621(d)(2)(A)(i).

²⁰⁹ *Id.* § 9621(d)(2)(A)(ii). Thus, the SARA "codified the concept that the requirements of other laws are potentially applicable and relevant and appropriate. Decisions about which laws and regulations are ARARs are made on a site-by-site basis." Noskin, *supra* note 26, at 173. The term "ARARs," or Applicable or Relevant and Appropriate Requirements, refers to clean-up standards from federal, state, and local laws and regulations on the environment that the SARA will "borrow"--if they are deemed to be "ARAR"--for use as clean-up standards at sites. 40 C.F.R. §§ 300.430(d)-300.430(f) (listing nine criteria on which remedy selection must be based, to include protection afforded to human health and the environment, long-term effectiveness and permanence, and cost).

²¹⁰ See *Annotated Legislative History of SARA*, *supra* note 194, at 2 ("[t]he emphasis in SARA § 121 on permanent cleanups is new and based on very little engineering experience").

²¹¹ The EPA need not comply with these rigid clean-up standards in every case. See 42 U.S.C. § 9621(d)(4). Known as the "waiver clause," it allows the EPA to select a remedial action that does not attain the standards required in section (d)(2)(A). However, the EPA must provide, for public review and comment, a detailed explanation of why it selected the particular remedial action over one that would comply with the new standards. *Id.* § 9621(4)(A)-(F). See also *infra* notes

Moreover, both commentators and law makers alike viewed such rigid standards as much too difficult to comply with. They also saw them as responsible for both extensive delays in the commencement/ completion of cleanups and driving the cost of cleanups "through the roof."²¹²

c. *Additional Changes*--The SARA mandates many additional changes that have profoundly affected the Superfund program. It makes possible an "innocent landowner" defense for current land or facility owners by redefining the term "contractual relationship" in the CERCLA.²¹³ The SARA

424-29 and accompanying text (discussing how federal facilities and the EPA have lost even more flexibility in the wake of *United States v. Colorado*).

²¹² "Due to the SARA's new and stringent cleanup standards, the cost of cleanups has increased dramatically." *Limiting Judicial Review*, *supra* note 156, at 1159, 1164 (citing 17 Env't Rep. (BNA) 778-79 (Sept. 26, 1986)) (indicating that cleanups would cost \$600 million per site, and that litigation expenses may reach astronomical levels).

See Millan, *supra* note 35, at 373 (citing SUPERFUND: COST GROWTH ON REMEDIAL CONSTRUCTION ACTIVITIES 15 (GAO-RCED 88-69) (1988)) (noting that the EPA experienced a 25% cost growth in two years in remedial construction activities under the SARA's new standards).

²¹³ 42 U.S.C. § 9601(35). The definition of the term is critical under 42 U.S.C. § 9607(b)(3), which holds liable "a person who by contract . . . arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person . . . at any facility . . . owned or operated by another party or entity and containing such hazardous substances." *Id.* § 9607(b)(3) (emphasis added). In sum, the new definition of the term allows a current landowner--a PRP--to prove that it acquired the land subsequent to the hazardous substances being placed on the land or in the facility, and that (1) it neither knew nor had reason to know that the land or facility had the substances in

facilitates the voluntary settlement of cleanups with PRPs by granting the EPA settlement authority,²¹⁴ and by allowing the EPA to issue nonbinding preliminary allocation of responsibility (NBAR) decisions.²¹⁵ The CERCLA had failed to address these settlement issues properly, and Congress

or on it; or (2) that it inherited the site; or (3) that it is a government entity that acquired it through eminent domain, escheat, or any other involuntary transfer or acquisition. *Id.* § 9601(f)(35).

²¹⁴ *Id.* § 9622. The SARA authorizes the EPA to enter into both de minimis and "mixed-funding" settlements. *Id.* § 9622(g), (b)(1). De minimis settlements concern those PRPs that have little actual responsibility with regard to the amount of hazardous waste at a site. The EPA tends to promptly settle with these PRPs, subject to certain exceptions. *Id.* § 9622(g). Mixed funding settlements are agreements with PRPs concerning payment of "orphan shares," or the amount attributed to unknown or unavailable PRPs. The Superfund will finance the amount of the cleanup not borne by the settling PRPs, and will seek reimbursement from any remaining PRPs. *Id.* § 9622(b)(1).

²¹⁵ *Id.* § 9622(e)(3). This grant of authority to the EPA allows it to notify PRPs, in the NBAR, of their potential responsibility at a site. Allocation of liability always has presented difficulties concerning settlements. See Bayko & Share, *supra* note 120, at 30. The article indicates that

[a] major problem in reaching settlement in a multi-PRP site is the allocation of liability among PRPs. The EPA never has considered this allocation to be its problem, and the PRPs frequently are not able to deal objectively with this issue.

Volume is one measure of allocation, but differing toxicity of wastes--and the question of how to factor in transporters and site owners--makes a simple formula elusive. In some situations, a neutral arbitrator has been used, but parties are not always willing to trust an outside party.

Id. By notifying PRPs of their potential responsibility early on in the process, Congress hoped to promote more settlements.

believed that enacting these changes to the CERCLA would simplify and assist the settlement process, thereby expediting the overall clean-up process. The SARA also adopted statutory rules concerning PRPs seeking contribution from other PRPs,²¹⁶ community right-to-know and emergency planning provisions,²¹⁷ and the expansion of health assessments at Superfund sites.²¹⁸

Finally, the SARA greatly expanded the state's (and citizens') role in the Superfund program,²¹⁹ making it much

²¹⁶ See *supra* notes 149-50 and accompanying text (discussing indemnification provisions that the SARA added to the CERCLA which allows PRPs to seek contribution from additional PRPs).

²¹⁷ 42 U.S.C. § 9604(i)(6)(B). Adopted in response to the deadly release of chemicals in Bhopal, India, in December 1984, Title III of the SARA, known as the Emergency Planning and Community Right-to-Know Act of 1986, contains certain requirements for emergency planning and release of information to the public concerning the dangers of hazardous substances within a community. See *Annotated Legislative History of SARA*, *supra* note 194, at 13; EPA, TITLE III FACT SHEET, EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (1987); Elkins & Makris, *Emergency Planning and Community Right-to-Know*, 38 J. AIR POLLUTION CONTROL ASS'N 243 (1988); see also Galanter, *When Worlds Collide: Reflections on Bhopal, The Good Lawyer, and the American Law School*, 36 J. LEGAL EDUC. 292 (1986); Montgomery, *Reducing the Risk of Chemical Accidents: The Post-Bhopal Era*, 16 ELR 10300 (Oct. 1986); but see Burtis, *Title III Compliance May Not Be Enough: Lessons Learned from a Chemical Fire in Seabrook, NH*, ENVTL. MANAGER'S COMPLIANCE ADVISOR 1 (1988).

²¹⁸ 42 U.S.C. § 9604. The Act requires the Agency for Toxic Substances and Disease Registry (ATSDR) to conduct a health assessment at every NPL site, which will immediately report any toxic substances at a site that pose serious risks to the surrounding community. The EPA must then eliminate, or mitigate to a high degree, the danger to the population. *Annotated Legislative History of SARA*, *supra* note 194, at 13-14.

²¹⁹ 42 U.S.C. § 121(f).

less of a federal program than it was with the original legislation.²²⁰ The SARA makes "the states the EPA's partner at each stage of cleanup or settlement."²²¹ Moreover, the SARA's new clean-up standards, requiring compliance with all state ARARs (clean-up standards),²²² mean that the states are now involved in every phase of the clean-up process.²²³ One commentator, shortly after the SARA's enactment, wrote that "the strengthened state involvement reflects a congressional belief that each Superfund site is a local concern that merits local input."²²⁴ However, this strengthened state involvement has instead led only to increased costs and slower cleanups.²²⁵

The same might be said about many of the SARA's amendments to the CERCLA. Congress designed these amendments with the ultimate goal of expediting the clean-up process. However, the overall effect has been to further shackle those to whom

²²⁰ *Annotated Legislative History of SARA*, *supra* note 194, at 12.

²²¹ *Id.*

²²² See *supra* notes 208-11 and accompanying text (discussing the SARA's new clean-up standards that incorporate state ARARs).

²²³ See 42 U.S.C. § 9604(d)(1) (discussing cooperative agreements that the EPA must enter into with states).

²²⁴ Bayko & Share *supra* note 120, at 31.

²²⁵ See *infra* notes 401-29 and accompanying text (discussing the role that the states are playing in the clean-up process at federal facility NPL sites and its ramifications).

Congress entrusted the program, slowing the process down while simultaneously increasing the costs tremendously.²²⁶ Congress would soon realize, however, that the Superfund program was not the "ready fix" that it imagined that it would be, and that additional changes would be necessary.

III. The DOD and Hazardous Waste

*To the victors in the Cold War go the spoils--and the spoilage. It's in the form of fouled soil, contaminated drinking water, and acres of wilderness pocked with unexploded bombs. The Pentagon's arsenal, assembled over 40 years to keep the lid on superpower conflict, has left deep scars on the home front.*²²⁷

²²⁶ Studies indicate that, on average, it takes over 14 years to move from the identification of contaminated sites to the completion of the remedial design/remedial action (RD/RA) period of the clean-up process. Wegman & Bailey, *supra* note 2, at 889 & n.140 (citing ISSUES & OPTIONS, *supra* note 19, at 21). See *supra* note 29 (discussing the inordinate amount of time spent on the early phases of the clean-up process at the Twin Cities Army Ammunition Plant (TCAAP) and the Rocky Mountain Arsenal). See also *supra* note 20 (indicating that the average cost of cleaning up a Superfund site ranges from \$25 to \$30 million).

²²⁷ Turque & McCormick, *supra* note 24, at 20.

A. *The Early Years (or, "The Military's Toxic Legacy"*²²⁸)

The military's record in protecting the environment has paralleled the nation's record--that is, appalling.²²⁹ As the nation's largest industrial organization, the DOD also was one of the nation's largest polluters.²³⁰ As an integral part of the growth in industry spawned by the World Wars, the military manufactured, or required the manufacture of, massive amounts of chemicals, munitions, and other goods. Many of the by-products of this manufacturing were extremely hazardous to human health. This process continued for decades after the wars' end.²³¹

²²⁸ I use this phrase "tongue in cheek," as it is certainly one of the most overused phrases in the area of military environmental law.

²²⁹ See *supra* notes 46-52 and accompanying text.

²³⁰ See *supra* notes 53-58 and accompanying text. In 1990, the "military's 871 domestic installations, strung across 25 million acres of land, produce[d] more tons of hazardous waste each year than the top 5 U.S. chemical companies combined." Turque & McCormick, *supra* note 24, at 20. Up until 1989, the military generated almost 750,000 tons of hazardous wastes per year. Michael Satchell, *Uncle Sam's Toxic Folly*, U.S. NEWS & WORLD REP., Mar. 27, 1989, at 20, 21. I used the word "was" because, as described later, the military has made a tremendous effort toward reducing its output of hazardous waste. See *infra* notes 235-37 and accompanying text.

²³¹ Through its wartime agencies, the government regulated prices, wages, production, consumption, and the flow of scarce raw materials These regulations forced private firms to manufacture increased quantities of products such as rubber, steel, aluminum, and rayon. These products were then sold

The military disposed of the hazardous wastes it created by methods acceptable at the time, but that now would create public outrage.²³² Moreover, America's Cold War role mandated

to the government for profit, fueling the war effort and propelling the nation out of the Great Depression.

Katzman, *supra* note 159, at 1191 (citing 1 CIVILIAN PRODUCTION ADMINISTRATION, INDUSTRIAL MOBILIZATION FOR WAR: HISTORY OF THE WAR PRODUCTION BOARD AND PREDECESSOR AGENCIES, 1940-1945, at 964-66 (1947)) (citations omitted). The article concludes this passage by indicating that "[i]n the process, however, privately owned facilities generated and disposed of massive quantities of industrial waste, hazardous to both human health and the environment." *Id.* at 1191-92 (citation omitted).

See Calhoun, *supra* note 20, at 60. The article notes that the hazardous materials produced by the military industrial complex "include[d] acids, alkalines, contaminated sludge, corrosives, cyanide, degreasers, dioxins, explosive compounds, fuels, heavy metals, herbicides, low-level radioactive waste, lubricants, nitrates, oils, paints, paint strippers and thinners, pesticides, polychlorinated biphenyls (PCBs), solvents, and unexploded ordinance." *Id.* Furthermore, the military produces many of these toxic substances through the result of ordinary, everyday activities at military installations--maintaining vehicles and aircraft, painting and stripping paint, and using weapons, fuel, vehicles, and aircraft. *Id.*

²³² The military disposed its hazardous waste in this manner because no one was aware of any adverse consequences. See Calhoun, *supra* note 20, at 60. The article notes that:

In the past, like much of civilian industry, the military employed methods of handling, storing, and disposing of hazardous materials and wastes, that, while accepted procedure at the time, would be considered environmentally unsound today. For example, it was common practice on bases to dump untreated wastes into unlined landfills and trenches. Chemical solvents used as cleaning agents, degreasers, and paint strippers were permitted to drain directly into the ground. In fire training areas, waste oils purposely were poured into the ground and set ablaze to train firefighters.

sufficient military power to resist any threats to the nations's welfare. Thus, "national security concerns took

Id. Apparently, we should not excuse the use of all of these methods as uninformed actions of days gone by. On October 1, 1993, the EPA issued a Notice of Violation to one Army installation, under the RCRA, for failing to obtain a permit and properly dispose of hazardous substances. The notice sought \$1.3 million in penalties. It appears that the installation, among other violations, allowed firefighters to train with hazardous substances dispersed on the ground and set on fire. *National Defense Authorization Act for Fiscal Year 1995: Hearings on S. 2182, H.R. 4301 and Oversight of Previously Authorized Programs Before the House Comm. on Armed Services, Division B--Military Construction: Hearing on H.R. 4302 Before the Subcomm. on Military Installations and Facilities of the House Comm. on Armed Services, 103d Cong., 2d Sess. 1, 37-38; see also Kassen, supra note 24, at 1499-1500.*

See Earl Lane and Marie Cocco, *The Poison Touch: Charged as the Premier Protector of the Environment, the Federal Government Has in Fact Been a Spoiler of Untold Proportions*, *NEWSDAY*, Feb. 4, 1990, at 4. The article responds to the query, "How did the government get into this mess?" by stating that

[i]t is in part a legacy of a time when, for example, it was routine for workers at government laboratories to bury animal carcasses that had been irradiated for experiments alongside chemical wastes and other toxins in the same shallow, unlined pit. During World War II, it was common for testing-ground workers to dig a large pit, dump in unexploded ammunition and cover it up.

Id. However the article notes that in private industry similar practices led to widespread pollution. Thus, it was not only the military that was unaware of the dangers posed by such disposal methods. *Id.*

See also Richards & Pasztor, *Why Pollution Costs of Defense Contractors Get Paid by Taxpayers*, *WALL ST. J.*, Aug. 31, 1992, at A1 (arguing that defense contractors had little to no incentive to exercise care in handling toxic wastes, because the government would eventually absorb the costs of the contractors' cleanups).

precedence over ecological ones."²³³ As a result, "portions of virtually every major United States military base and many minor facilities are contaminated and in need of a cleanup."²³⁴

²³³ Calhoun, *supra* note 20, at 60. Another commentator noted that

[f]or over two centuries, the armed services, most recently under the Department of Defense, have been entrusted with the defense of the country. For forty years, the primary mission of the Department of Energy and its predecessor agencies was to build nuclear weapons for the national defense. Historically, Congress has given the agencies responsible for the country's military protection far greater leeway for complying with applicable laws than other federal agencies.

Kassen, *supra* note 24, at 1478 (citing OFFICE OF ENVTL. MGMT., U.S. DEP'T OF ENERGY, CLOSING THE CIRCLE ON THE SPLITTING OF THE ATOM 4 (1995) [hereinafter CLOSING THE CIRCLE]) (citations omitted). "For more than 50 years, DOE and its predecessors focused on producing nuclear weapons, giving relatively low priority to managing waste, whether hazardous (toxic) or radioactive or both (mixed waste)." Babich, *supra* note 4, at 1526 (citing NATIONAL PRIORITIES, *supra* note 11, at 10).

Courts also have "tread lightly in the area of national security." See, e.g., *Rostler v. Goldberg*, 453 U.S. 57, 66 (1981) (indicating that the "Court exercises 'a healthy deference to legislative and executive judgments in the area of military affairs'").

²³⁴ Calhoun, *supra* note 20, at 60. Many of the DOD's thousands of contaminated sites present only slight hazards to the public. However, many still exist that pose significant threats. For example, the DOD has over 100 sites on the NPL (the DOE has 16) out of over 1200 on the list. The total number of federal facilities that contain contamination exceeds 21,000. FEDERAL FACILITIES ENVIRONMENTAL RESTORATION DIALOGUE COMMITTEE, INTERIM REPORT: RECOMMENDATIONS FOR IMPROVING THE FEDERAL FACILITY ENVIRONMENTAL RESTORATION DECISION-MAKING PROCESS AND SETTING PRIORITIES IN THE EVENT OF FUNDING SHORTFALLS (1993) [hereinafter FFERDC INTERIM REPORT]. See SHULMAN, *supra* note 4, at 1; DERP 1994 REPORT, *supra* note 10, at B6-1.

"Today, DOD facilities are laced with almost every imaginable contaminant: Toxic and hazardous wastes, fuels, solvents, and unexploded ordnance." Miller, *supra* note 8, at

Since the late 1980s, however, the DOD has demonstrated a sincere commitment to environmental clean-up efforts²³⁵ and it

1 (quoting the Deputy Under Secretary of Defense (Environmental Security) in testimony before the House Armed Services subcommittee on May 13, 1993).

A special report conducted for the *New York Times* concluded that:

The military industry has produced the most toxic pollution in the country and virtually every military installation has been extensively contaminated The problems were caused by more than four decades of environmental neglect. The haphazard disposal of toxic wastes in lagoons, leaking underground storage tanks and dump sites caused acres of ground to become saturated with hazardous chemicals that also seeped into underground water supplies. Among the toxic constituents are heavy metals from electroplating, diesel and jet fuel, solvents and degreasing agents from operating machinery and chemical byproducts from munitions manufacturing.

Keith Schneider, *Toxic Pollution at Military Sites Is Posing a Crisis*, N.Y. TIMES, June 30, 1991, at 1, col. 1.

Approximately 60% of the DOD sites that need cleanup contain contamination from fuels and solvents (most from leaking underground storage tanks), 30% contain "explosive compounds and other toxic and hazardous industrial wastes such as heavy metals," 8% have unexploded ordnance, and 2% contain low-level radioactive wastes. *Military's Toxic Legacy*, supra note 20, at 62.

²³⁵ "Defense and the environment is not an either/or proposition. To choose between them is impossible in this real world of serious defense threats and genuine environmental concerns. The real choice is whether we are going to build a new environmental ethic into the daily business of defense." Major Michele McAnich Miller, *Defense Department Pursuit of Insurers for Superfund Cost Recovery*, 138 MIL. L. REV. 1, 1 (1992) (citing Address by Secretary of Defense Dick Cheney to a national environmental conference, Sept. 4, 1990, quoted in Dianne Dumanoski, *Pentagon Takes First Steps Toward Tackling Pollution*, BOSTON GLOBE, Sept. 9, 1990, at 79).

has made steady progress in certain areas.²³⁶ Yet much remains to be done.²³⁷ Now, in this post-Cold War era of declining defense budgets and base closures, the military is still confronted with a massive clean-up task.²³⁸

The Clinton Administration also evidenced its resolve to address defense environmental issues by creating in 1993 the high-level position of Deputy Under Secretary of Defense (Environmental Security) (DUSD) (ES), presently occupied by Sherri Wasserman Goodman. Calhoun, *supra* note 20, at 62.

²³⁶ See Calhoun, *supra* note 20, at 63 (indicating that the Pentagon claims that between 1987 and 1991, it reduced its annual disposal of hazardous wastes by more than one-half; that more than 90% of military installations now recycle; and that over 5000 full-time environmental professionals currently work for the military).

See also Calhoun, *supra* note 12, at 21, which related that

[a]s part of a September 1990 Defense and the Environment Initiative, President Bush's Defense Secretary Dick Cheney declared that "the primary mission of the Department of Defense is no excuse for ignoring the environment." Under Cheney, DOD resolved to become the "federal leader" in environmental compliance and protection and to make environmental concerns part of the daily business of military bases.

²³⁷ See, e.g., Bettigole, *supra* note 4, at 683-89 (detailing ominous conditions at numerous DOD installations and DOE nuclear weapons facilities).

²³⁸ In its annual report to Congress for fiscal year 1995, the DOD indicated that 21,145 military installation sites had been identified as still containing hazardous wastes, and that a total of 123 military installation sites had been placed on the NPL. DERP 1994 REPORT, *supra* note 10, at A8. The military faces a "multi-billion dollar, decades long cleanup task at nearly 20,000 contaminated sites on hundreds of military and weapons-production installations." SHULMAN, *supra* note 4, at 1.

See Lane & Cocco, *supra* note 232, at 4, which states that a three-month Newsday study of the federal government's pollution record found a huge catalog

B. *The Defense Environmental Restoration Program*

1. *The Installation Restoration Program*--Despite its poor record on the disposal of hazardous wastes, the military actually played a lead role in creating environmental programs designed to address hazardous waste issues.²³⁹ In 1975, the

of leaching landfills, leaking underground tanks, radioactive waste piles and lab disposal pits at U.S. facilities, installations and public lands. It is a record of widespread environmental neglect, going far beyond the well-publicized decay in the Department of Energy's nuclear weapons factories and revealing a government that has broken the same pollution laws it enforces on others.

See also Katie Hickox, *Swords into Bankshares: How the Defense Industry Cleans up on the Nuclear Build Down*, WASH. MONTHLY, Mar. 1992, at 31-32 (discussing the tremendous opportunities presented to the defense industry by the closure of military installations replete with toxic contamination); *Washington Cleans up Its Act*, 100 CHEMICAL ENGINEERING 31 (May 1993) (quoting Kathleen Hain, Director of the DOE's Office of Demonstration, Testing, and Evaluation, "[T]his mammoth cleanup task is going to take decades, at a cost of billions of dollars a year, and is probably the country's biggest industry.").

²³⁹ Major David N. Diner, *The Army and the Endangered Species Act: Who's Endangering Whom?*, 143 MIL. L. REV. 161, 196 (1994). Major Diner indicates that

[i]n 1975, the Army, on its own initiative, formed an organization that ultimately would become the United States Army Toxic and Hazardous Materials Agency (USATHAMA). By 1979, USATHAMA was engaged in a nationwide study of Army installations to detect, stabilize, and ultimately remediate contamination problems caused by past waste disposal practices. This program became known as the Installation Restoration Program, and predated the passage of the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as the "Superfund," by almost three years. When enacted,

Army created a trial Installation Restoration Program (IRP) to confront its significant hazardous waste problems. This, in turn, led to an expansion of the program within the DOD in 1976.²⁴⁰ However, difficulties soon arose in the implementation of this program, requiring congressional action.

First, section 120 of the CERCLA made federal facilities-- that is, the DOD--liable for hazardous waste contamination at these facilities.²⁴¹ As such, the DOD had to develop methods

the Superfund adopted many of the procedures pioneered by USATHAMA.

By 1991, the Installation Restoration Program included 10,578 Army sites, of which 5054 needed restoration work. Interagency agreements, governing clean-ups at all 30 Army sites listed on the National Priorities List, were completed.

Id. at n.227. Major Diner notes that the military "did not fully appreciate the magnitude of the environmental challenges it confronted" at this time, however, and that its "compliance record was inconsistent" and it lacked an "overall strategy . . . for incorporating environmental objectives into the . . . mission." *Id.* at 197.

²⁴⁰ See Kyle E. McSlarrow, *The Department of Defense Environmental Cleanup Program: Application of State Standards to Federal Facilities After SARA*, 17 *Envtl. L. Rep.* (Envtl. L. Inst.) 10,120 (Apr. 1987). The article indicates that the Army created the IRP to address the toxic waste contamination at various Army installations, most notably the Rocky Mountain Arsenal in Colorado. See *infra* notes 375-400 and accompanying text (describing the Army's Rocky Mountain Arsenal's horrendous conditions and the legal battles surrounding the Arsenal).

²⁴¹ The CERCLA imposed liability for all costs associated with a release or threatened release of a hazardous substance on any person who, inter alia, owned or operated a facility at the time of release. 42 U.S.C. § 9607. Moreover,

to comply with the CERCLA's response action requirements. Under the IRP, each department within the military had adopted its own methods, which led to inconsistent efforts and results.²⁴² The military needed one program that would develop a uniform method for use by all of the services.

A second difficulty concerned funding for these remediation efforts. The CERCLA limited the financing of remedial actions from the Superfund to nonfederal sites listed on the NPL.²⁴³ Consequently, "funding for each military department's installation restoration program came directly out of agency operations and maintenance (O&M) funds."²⁴⁴ In the early days of the military's environmental efforts, environmental programs did not fare well in competing for funding. This was especially true when they were pitted against certain O&M expenses--such as training, maintenance, and the everyday requirements necessary to run an installation--oil, gas, electricity, food, and many other

the CERCLA defines "person" to include the United States government. *Id.* § 9601(21).

²⁴² SHULMAN, *supra* note 4, at 10.

²⁴³ "No money in the fund shall be available for remedial action . . . with respect to federally owned facilities." 42 U.S.C. § 9611(f); 40 C.F.R. § 300.425(b)(1).

²⁴⁴ Henley, *supra* note 74, at 17-18. Major Henley's thesis also notes that O&M funds are yearly funds that come from DOD appropriations acts--usually good for only one year. *Id.* at n.162.

expenses.²⁴⁵

Congress recognized that the military's clean-up program needed proper funding to comply with the CERCLA's requirements.²⁴⁶ In response, it created an environmental restoration account in 1983.²⁴⁷ Congress intended for this account to provide the funding necessary for CERCLA response activities. However, Congress was only just beginning to recognize the magnitude of the toxic waste problem on military lands. As such, it also recognized the need for a comprehensive program to control the clean-up process at these sites. Consequently, the formation of the DOD's IRP in the 1970s and its subsequent work to investigate, identify, and, where necessary, perform site cleanups²⁴⁸ ultimately resulted

²⁴⁵ See S. REP. NO. 292, 98th Cong., 1st Sess. 73 (1983) [hereinafter S. REP. NO. 292]; see also Henley, *supra* note 74, at 18 & n.163.

²⁴⁶ S. REP. NO. 292, *supra* note 245, at 73.

²⁴⁷ Department of Defense Appropriations Act for Fiscal Year 1983, Pub. L. No. 98-212, 97 Stat. 1421, 1427 (1983). See National Defense Authorization Act for Fiscal Year 1984, Pub. L. No. 98-94, 94 Stat. 614 (1983). Congress funded this account as a line-item appropriation for FY 1983, 1984, and 1985. See Department of Defense Appropriations Act for Fiscal Year 1984, Pub. L. No. 98-473, 98 Stat. 1904, 1910 (1984); Department of Defense Appropriations Act for Fiscal Year 1985, Pub. L. No. 99-190, 99 Stat. 1185, 1192 (1985); see also Henley, *supra* note 74, at 18 & nn.169, 171-73. Congress initially named the account "EDRA," or the "Environmental Defense Restoration Account," but subsequently changed its name to "DERA," or the "Defense Environmental Restoration Account" in 1986. *Id.* at n.168.

²⁴⁸ "The Installation Restoration Program (IRP) is the program under which the Department of Defense (DOD)

in the creation of the Defense Environmental Restoration Program (DERP) in 1986.

2. *The DERP Defined*--The SARA established the DERP²⁴⁹ to "promote and coordinate efforts for the evaluation and cleanup of contamination at Department of Defense (DOD) installations."²⁵⁰ he DERP actually encompasses two²⁵¹ separate, subordinate programs--the IRP²⁵² and the Other

identifies, assesses, investigates, and cleans up hazardous substances, pollutants, and other contaminants associated with past activities." Harold E. Lindenhofen et al., *Measuring Progress in DOD's Installation Restoration Program*, 4 FED. FACILITIES ENVTL. J. 167, 168 (Summer 1993).

²⁴⁹ Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, Title II, § 211(a)(1)(B), 100 Stat. 1613, 1719 (codified as amended at 10 U.S.C. §§ 2701-2707 (1995)).

²⁵⁰ DERP 1994 REPORT, *supra* note 10, at B6-1. As of 1994, the DOD reported that in excess of 21,000 potentially contaminated sites existed at over 1700 military installations. *Id.*

²⁵¹ If Building Demolition and Debris Removal (BDDR) projects are considered a program, the number is actually three. These projects involve "demolishing and removing unsafe buildings and structures at DOD installations and formerly used properties." DERP 1993 REPORT, *supra* note 9, at 1.

²⁵² The IRP investigates and, as necessary, conducts site cleanups at DOD contaminated facilities. *Id.* at 1-2. The IRP actually encompasses programs directed at facilities still in use (IRP) and former facilities, or formerly used defense sites (FUDS) no longer in use--such as installations and bases, arsenals, ammunition plants, depots, equipment manufacturing plants, proving grounds, shipyards, forts, and camps. These FUDS are properties "transferred over to the private sector for which the DOD retains some cleanup responsibilities." *Federal Facilities: New Technologies*, 26 [Current Developments] Env't Rep. (BNA) 1903 (Feb. 2, 1996) [hereinafter *New Technologies*]. The number of potential sites in the FUDS program totals almost 8320. DERP 1994 REPORT,

Hazardous Waste (OHW) Operations Program.²⁵³ Distilled to its purest form, the DERP mandates the "investigation and cleanup of contaminated defense sites and formerly used properties."²⁵⁴ It also describes the process by which DOD agencies should comply with this mandate.

In the statutes governing the DERP,²⁵⁵ Congress directed that the Secretary of Defense, in consultation with the EPA, "carry out a program of environmental restoration at facilities under the jurisdiction of the Secretary. . . . known as the Defense Environmental Restoration Program."²⁵⁶

supra note 10, at B6-1. The Army Secretary is the executive agent for these sites and, as such, is "responsible for environmental restoration activities under DERP on lands formerly owned or used by any DOD component." *Id.* However, the United States Army Corps of Engineers has the ultimate responsibility for executing the program. *Id.*

The IRP, consistent with the NCP, consists of the preliminary assessment stage, *see supra* note 196, the remedial investigation/feasibility study (RI/FS) stage, *see supra* note 201, and the remedial design/remedial action (RD/RA) stage, where, "[a]fter agreement is reached with appropriate EPA and/or state regulatory authorities on how to clean up the site . . . work begins. During this phase, detailed design plans for the cleanup are prepared and implemented." DERP 1993 REPORT, *supra* note 9, at 2. The IRP presently is responsible for over 2000 contaminated installations.

²⁵³ The OHW conducts "research, development, and demonstration programs aimed at improving remediation technology and reducing DOD waste generation rates." DERP 1993 REPORT, *supra* note 9, at 1.

²⁵⁴ Larry Grossman, *The Big Toxic Waste Cleanup*, A.F. MAG., Oct. 1991, at 62.

²⁵⁵ 10 U.S.C. §§ 2701-2707.

²⁵⁶ 27 U.S.C. § 2701(a)(1), (3).

Congress also listed in these statutes the goals of the DERP, which included the following:

- (1) Addressing hazardous waste contamination (identification through cleanup);
- (2) Correcting other environmental damage (such as unexploded ordnance); and
- (3) Demolishing and removing unsafe buildings and structures.²⁵⁷

More importantly, Congress used this statute to impose some of its own direction and control over the DOD's restoration program. Congress required that "activities of the program shall be carried out subject to, and in a manner consistent with, section 120 of the . . . CERCLA."²⁵⁸ Section

²⁵⁷ 10 U.S.C. § 2701(b)(1)-(3). See Henley, *supra* note 74, at 19 ("[b]ecause these are program goals and not requirements, DOD retains discretion to prioritize its cleanup activities among these three categories of environmental damage") (citations omitted); *id.* at n.181 (citing Exec. Order No. 12,316, 46 Fed. Reg. 42,237 (1981), as amended by Exec. Order No. 12,418, 48 Fed. Reg. 20,981, revoked by and current delegation of authority at Exec. Order No. 12,580, 52 Fed. Reg. 2923 (1987)); 40 C.F.R. §§ 300.120(b), 300.175(b)(4) (1993) (indicating that "while most of the President's CERCLA authority has been delegated to the EPA pursuant to 42 U.S.C. § 9615 (1988), the President delegated his CERCLA response authority under §§ 9604(a)-(b) with respect to DOD facilities to the Secretary of Defense").

²⁵⁸ 10 U.S.C. § 2710(a)(2).

120 of the CERCLA mandates that federal facilities comply with the provisions of the CERCLA "in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity."²⁵⁹ Moreover, Congress directed that the DOD's program must be consistent with the NCP.²⁶⁰ Thus, for NPL sites (governed by the CERCLA),²⁶¹ the DOD must comply with all of the CERCLA's standards and requirements the same as any other entity.²⁶² For non-NPL sites (governed by state

²⁵⁹ 42 U.S.C. § 9620(a)(1).

²⁶⁰ *Id.* § 9605(d). "When the military agencies carry out their cleanup responsibilities, they adhere to a basic three-step process outlined by the National Contingency Plan (NCP): (1) preliminary assessment/site inspection (PA/SI); (2) remedial investigation/feasibility study (RI/FS); (3) remedial design/remedial action (RD/RA).". Hanash, *supra* note 18, at 115.

All DOD facilities must be screened for past use of, and contamination by, hazardous substances--the PA/SI process. If hazardous substances are found in reportable quantities, the EPA must be notified. The EPA will rank the facility on the HRS and, if warranted, propose it for inclusion on the NPL. Once the facility is placed on the NPL, a RI/FS must be started within six months. See Diner Interview, *supra* note 79 (discussing the requirements of the NCP); 42 U.S.C. §§ 9602, 9603, 9620(e)(1). See also 40 C.F.R. §§ 300-373.3 (the National Contingency Plan).

²⁶¹ Unlike other statutes governing hazardous waste, the CERCLA does not provide for the EPA to delegate its regulatory authority to the states. The SARA allowed for the integration of state and local requirements into the remedy selection process at NPL sites if the lead agency (the agency leading the cleanup) determines that the requirements are applicable and relevant or appropriate (ARAR). 42 U.S.C. § 9621.

²⁶² See *id.* § 9620. The DOD, in conjunction with the EPA, must establish a Federal Agency Hazardous Waste Compliance Docket, which lists all federal facilities at which hazardous substances have been treated, stored, or disposed, or at which reportable quantities of these hazardous substances have been released. *Id.* § 9620(c); James Woolford,

law),²⁶³ the DOD must comply with all applicable state standards and requirements, no matter how onerous.²⁶⁴ In sum, the statutes require that DOD agencies, in carrying out their program to identify, evaluate, and clean up DOD sites, "comply with all applicable or relevant and appropriate federal and state laws"²⁶⁵ (ARARs)--that is, federal, state, and local

EPA's Federal Facility Program--An Insider's Perspective, 3 FED. FACILITIES ENVTL. J. 383, 385 (Winter 1992-93). Currently, 2070 facilities are on this docket. Telephone Interview on the Superfund, RCRA, and EPCRA Hotline (which replaced the unfunded CERCLIS Hotline) (Feb. 27, 1996) (for updated information, the number is 1-800-424-9346). Once the EPA places a facility on the docket, the process required under the NCP commences, and the federal facility conducts an assessment.

If the HRS score for a facility warrants such action, the site is placed on the NPL. The CERCLA then mandates that the DOD begin investigations and studies to determine the "nature and extent of contamination." Woolford, *supra* at 387.

²⁶³ State and local standards apply at non-NPL sites. Generally, states will have their own hazardous waste programs ("mini-Superfunds"). 42 U.S.C. § 9620(a)(4). Many states utilize their authority under the RCRA permitting process to regulate activities at sites that are considered TSDFs. *Id.* § 6924(u). See *supra* note 82-85 and accompanying text (discussing the RCRA permitting process in more detail); see also Diner Interview, *supra* note 79 (discussing administrative authority at NPL/non-NPL sites).

²⁶⁴ State laws can be, and are, more stringent than federal laws. However, the SARA mandates that states not apply more stringent requirements to federal facilities than they apply to nonfederal facilities at non-NPL sites. Thus, states must treat the DOD consistent with their treatment of other public and private entities at these sites. 42 U.S.C. § 9620(a)(4).

²⁶⁵ David B. Guldenzopf, *Applying the National Historic Preservation Act to the Defense Environmental Restoration Program*, 4 FED. FACILITIES ENVTL. J. 319, 319-20 (Autumn 1993) (calling the DERP a "highly visible element of Defense agency environmental programs").

clean-up standards.

3. *The Defense Environmental Restoration Account*--A separate congressional appropriation--the Defense Environmental Restoration Account (DERA)--funds DERP clean-up activities conducted at active installations.²⁶⁶ The DERA receives its funding from two separate sources:²⁶⁷ appropriated funds from Congress,²⁶⁸ and monies recovered through court

²⁶⁶ 10 U.S.C. § 2703. Congress created the DERA as part of the SARA legislation in 1986. The account funds those cleanups conducted at domestic operating bases only. See Wegman & Bailey, *supra* note 2, at 889-90.

²⁶⁷ The process formerly mandated that once funds entered the DERA, they were transferred from this appropriations account to each of the DOD component's appropriations accounts--such as O&M, Research, Testing & Development (RT&D), or Procurement. The funds then became available for the same amount of time as the funds in that particular account (e.g., O&M funds are available for one year). However, the funds could be used only for environmental restoration activities. *Id.* § 2703(c). See Henley, *supra* note 74, at 21-22 & nn.203, 210.

However, Congress has now distributed these appropriations directly to the Services (and Defense wide) by virtue of the Defense Appropriations Act. In FY 1996, the breakdown was as follows:

United States Army: \$631.9 million*
United States Navy: \$365.3 million
United States Air Force: \$368 million
Defense-wide account: \$57 million

* The Army's allocation includes \$209.4 million for the clean up of FUDS, which the Army is responsible for, but which the Army Corps of Engineers manages. See Department of Defense Appropriations Act for Fiscal Year 1996, Pub. L. No. 104-61, 109 Stat. 636 (1995); see also *Defense Department Gets Its Money*, 6 DEF. CLEANUP 1 (Dec. 8, 1995) [hereinafter *DOD Gets Its Money*].

²⁶⁸ 10 U.S.C. § 2703(a)(1).

actions against liable PRPs. In these court actions, the government is reimbursed for the cost of cleanups paid for by the DOD.²⁶⁹ A separate account, the Base Closure Account (BCA), provides appropriated funds for cleanups at installations selected for closure by the Base Realignment and Closure (BRAC) Commission.²⁷⁰

²⁶⁹ 42 U.S.C. § 9607. See *supra* notes 149-50 and accompanying text (discussing indemnification provisions of the CERCLA).

²⁷⁰ The Base Realignment and Closure Program (BRAC) refers to DOD installations closed by four pieces of legislation enacted in 1988, 1991, 1993, and 1995 that need to be transferred to the private sector. BRAC sites need to be cleaned up before transferring the installations over to the private sector. Although the BRAC expires in 2001, sectors of DOD responsible for BRAC sites will still be responsible for closing and realigning bases.

New Technologies, *supra* note 252, at 1903. Defense Base Closure & Realignment Act of 1990, Pub. L. No. 101-510, §§ 2905(a), 2906, 104 Stat. 1808, 1815 (1990).

Base closure has helped increase environmental budgets, as Congress provides these funds as separate appropriations. Statutes governing BRAC environmental issues require that funding for the clean up of those installations or bases approved for closure must come from the BRAC account, not from the DERA. This causes difficulty when the list of bases recommended for closure is not approved until after money is appropriated for the FY. Because Congress has made no specific appropriations to the BRAC account for those bases, no money exists to pay for the cleanup. The DOD then must attempt to take the money from the DERA, which results in Anti-Deficiency Act concerns. See *Clinton Vetoes Defense Authorization Bill*, 7 DEF. CLEANUP 1, 1 (Jan. 5, 1996).

Defense environmental officials had requested that Congress place a "BRAC funding provision" into subsequent legislation, which would allow for a smooth transition of DERA funds to the BRAC account. This would have avoided any additional delays in the clean-up process at these closing

a. *Funding*--Congressional funding for the DERA steadily increased from the account's inception in 1984 through FY 1994.²⁷¹ Congress undoubtedly was aware of the magnitude of the cleanups required on military installations, as it increased the DERA's funding an extraordinary \$1.8 billion during this period.²⁷² In 1984, Congress began funding the DERA at \$150 million,²⁷³ yet by FY 1994, this funding had

bases. *Id.* Unfortunately, even though the Senate version of the 1996 Defense Appropriations Act contained such a provision, the final version did not. Those bases selected in the BRAC 95 process will have difficulty funding environmental restoration activities without subsequent action by Congress. See Department of Defense Appropriations Act for Fiscal Year 1996, Pub. L. No. 104-61, 109 Stat. 636 (1995). Congress provides almost four times as much money to the DERA as it does to the BCA, as the number of contaminated sites at active installations far exceeds those at installations on the BRAC list. See Wegman & Bailey, *supra* note 2, at 890.

²⁷¹ Funding for the DERA gradually expanded from its relatively small beginning. By FYs 1989 and 1990, the account had grown to \$500 million and \$600 million, respectively. See John J. Kosowatz & Paul Kemezis, *Spending Will Be Cooling Down Along with East-West Tensions*, 224 ENGINEERING NEWS-REC. 48, 48 (Jan. 25, 1990). During the first few years of the 1990s, the DERA even remained unaffected by the DOD's decision to reduce defense spending, from 1990-1995, by \$180 billion. *Id.* (indicating that Secretary of Defense Richard Cheney had announced in November, 1989 that the DOD would slice spending by more than \$180 billion). Congress and the President increased the DERA in FY 1991 from \$600 million to \$817 million, a 36% increase.

²⁷² President Bush, who labeled himself "the environmental president," repeatedly reminded the American public that the environmental budget for cleaning up federal facilities had tripled during his tenure in office. See, e.g., *Federal Facilities*, 1992 DAILY REP. FOR EXECUTIVES 199, 199-200 (Oct. 14, 1992). This amount included a supplemental appropriation for the DERA in FY 1993 totalling \$450 million. *Id.*

²⁷³ Department of Defense Appropriations Act for Fiscal Year 1984, Pub. L. No. 98-212, 97 Stat. 1421, 1427 (1983).

ballooned to \$1.9 billion.²⁷⁴ However, FY 1995 marked the beginning of a downward trend in congressional support for the DERA and other environmental programs.

b. *Budget Reductions*--In FY 1995, Congress began to seriously question the high cost and slow pace of the DOD's clean-up efforts.²⁷⁵ The cut in the DERA's budget for FY 1996 represented the second consecutive year that Congress reduced the DERA budget. From a high of \$1.9 billion in FY 1994, FY 1995 produced a budget of \$1.48 billion²⁷⁶ and the most recent cuts resulted in a \$1.41 billion budget for FY 1996.²⁷⁷

²⁷⁴ Department of Defense Appropriations Act for Fiscal Year 1994, Pub. L. No. 103-139, 107 Stat. 1418, 1425 (1993).

²⁷⁵ See Michael A. West, *The 104th Congress and Federal Facility Environmental Activities: A Preliminary Assessment*, 6 FED. FACILITIES ENVTL. J. 1, 2-4 (Summer 1995).

²⁷⁶ Congress initially had carved \$400 million out of the DERA budget request in its appropriation for FY 1995, providing the DERA with \$1.78 billion. Department of Defense Appropriations Act for Fiscal Year 1995, Pub. L. No. 103-335, 108 Stat. 2599 (1994). Subsequently, Congress sliced another \$300 million from the account as part of legislation that President Clinton signed on April 10, 1995. Emergency Supplemental Appropriations and Recissions for the Department of Defense to Preserve and Enhance Military Readiness 1995 Act, Pub. L. No. 104-6, 109 Stat. 73 (1995). The DOE also suffered a \$200 million loss in clean-up funding as part of the recissions package. See Tom Ichniowski, *Federal Programs on Block*, 234 ENGINEERING NEWS-REC. 11, 11 (Apr. 10, 1995).

In sum, the DERA lost \$700 million in funding in FY 1995, a figure that represents a loss of almost one-third of the DOD's budget request for the DERA for FY 1995. (The DOD had requested \$2.2 billion prior to the recissions package in April 1995). See West, *supra* note 275, at 2-3.

²⁷⁷ Department of Defense Appropriations Act for Fiscal Year 1996, Pub. L. No. 104-61, 109 Stat. 636 (1995). The

Moreover, most legal commentators predict that ongoing operations in Bosnia will force the President to slice more out of the DERA to cover costs incurred by the 20,000 troops keeping the peace.²⁷⁸ These recent reductions have brought the DERA's budget well below FY 1993 funding levels.²⁷⁹ The FY 1995 cuts alone exceeded the amount of the entire annual

\$1.41 billion figure represents a cut of about 13% from FY 1995 (almost 4% after the recissions), but over 12%, or \$211 million, less than the President had requested.

Similarly, Congress slashed the DOE's environmental restoration budget request as well. The President's \$6.6 billion request was reduced by approximately seven percent. Congress gave the DOE \$5.7 billion, which actually increased the agency's funding by approximately \$65 million over the previous FY.

²⁷⁸ See Michael A. West, *104th Congress and Federal Facility Environmental Activities: 1st Session Wrap-Up*, 6 FED. FACILITIES ENVTL. J. 1 & n.1 (Winter 1995/96) (this article presents an excellent analysis of recent congressional developments concerning environmental issues). Mr. West states that

[d]ue to the unfunded contingency costs associated with the deployment of U.S. military forces to Bosnia, a great deal of uncertainty remains about the ultimate allocation of FY 1996 Defense appropriations. Given the high probability that DOD funding offsets will be used to fund most of these unfunded contingency costs, combined with the prevailing attitude on Capitol Hill toward Defense environmental programs, further funding reductions affecting DOD environmental activities are likely.

Id. Those tasked with implementing the DOD's environmental programs are concerned about these forecasts. See *New Technologies*, *supra* note 252, at 1903. Budget analysts are closely monitoring the situation. Some predict that President Clinton could "tap as much as \$300 million from the DERA to augment \$1 billion he is requesting from Congress." *Clinton OKs DOD Funding*, 236 ENGINEERING NEWS-REC. 16 (Feb. 19, 1996).

²⁷⁹ West, *supra* note 275, at 3.

appropriation for the DERA prior to FY 1991.²⁸⁰ Why the sudden change after years of steady increases in the DERA budget? A variety of reasons exist.

c. *Why Now?*--Initially, the Republican-controlled Congress, elected in November 1994, saw a federal facility's environmental restoration budget as "just another cleanup program" that wasted good money. As such, Congress "went after it to cut it."²⁸¹ The high visibility of the program,²⁸² coupled with the frustration caused by what was perceived as poor management²⁸³ and the slow pace of cleanups,²⁸⁴ caused

²⁸⁰ See *id.*; see also *supra* note 252 (indicating that the DERA's FY 1990 budget was \$600 million).

²⁸¹ *New Technologies*, *supra* note 252, at 1903 (quoting Jim Werner, Director of Strategic Planning and Analysis with the DOE's Office of Environmental Management).

²⁸² Congress could see that the DERA was receiving almost two billion dollars per year, a figure that had grown from only \$150 million in ten years. See West, *supra* note 275, at 5-6. Even so, Congress did not fear any political fallout from these budget reductions. It knew that the public focused more on pollution prevention and protection from immediate threats to its health and safety. Moreover, Congress believed that the DERA was so large that a "modest reduction" would not cause any great disturbance. *Id.*

²⁸³ Many in Congress saw the DERA as having a penchant for fraud, waste and abuse. See *id.* at 6-7.

²⁸⁴ Some members of Congress appear to be recoiling from the sticker shock associated with the cleanup of long-term . . . contamination, which, provided appropriate containment measures are taken and institutional controls put in place, do not pose a threat to human health and the environment. A senior representative said that there was not much support for

Congress to take a scalpel to the DERA budget request.

Moreover, "the growing recognition that the DOD budget is under the greatest strain since the years immediately following the Vietnam War"²⁸⁵ prompted Congress's concern over the DERA's effectiveness. In its attempt to balance the budget by, in part, decreasing defense spending,²⁸⁶ Congress has placed "nontraditional" defense environmental programs in direct competition with "traditional" military programs that

funding a program that was 70% overhead. While this observation is neither accurate nor fair to what has been accomplished by DERA over the past decade, members of Congress are frustrated by the paucity of tangible results in terms of completed site cleanups.

Id. at 7 (emphasis added).

²⁸⁵ *Id.* at 3.

²⁸⁶ "Defense spending on procurement and research and development has decreased by about 7 percent each year since 1984, and a continuation of this 'free fall' jeopardizes modernization efforts," and, ultimately, the overall readiness of the military. *Id.* (citing *ISSUES AND OPTIONS*, *supra* note 19, at ix).

Defense spending in FY 1996 actually increased by \$1.7 billion over FY 1995. However, "[t]aking inflation into account, this actually represents a decline in real spending for the Pentagon." *New Defense Law Contains Alaska Projects*, CONG. PRESS RELEASES, Dec. 5, 1995 (a press release from Sen. Ted Stevens (R.- Alaska), Chairman of the Defense Appropriations Subcommittee). The Clinton Administration initially sought at least seven billion dollars in reductions to the defense spending bill. It relented, however, and signed the measure into law to get the \$1.5 billion necessary for military operations in Bosnia. See *DOD Gets Its Money*, *supra* note 267, at 1.

is more fierce than ever.²⁸⁷ Now, procurement, research, testing and development (RT&D), quality of life (QOL), and O&M programs compete with environmental programs for greatly reduced defense dollars.²⁸⁸ This competition does not even consider the affect of humanitarian and peacekeeping missions--like Bosnia--on the overall budget.

Additionally, the BRAC process has paradoxically increased defense costs, because of the amount of work required to turn

²⁸⁷ Sound environmental policies are critical for today's armed forces. However, I find myself agreeing with Mr. West when he observes that "[u]ntil the rules of conflict are changed to award the palm of victory to the most environmentally sensitive armed force, we will need military forces that are willing to go in harm's way and capable of fighting and winning." West, *supra* note 275, at 4.

Sherri Wasserman Goodman, DUSD (ES), raises an equally effective counterargument. "We have responsibilities and liabilities, which are the legacy of many decades of operations at these sites. We are using our sites more intensively today because of base closures and the return of foreign troops. If we don't have access to the air, land, and water, we can't use these sites and that's integral to readiness. We must be good stewards." Rubin, *supra* note 2, at 36 (quoting the DUSD (ES)).

²⁸⁸ The competition between DOD's environmental programs and other military programs for finite defense dollars presents some difficult choices. It is important that the military be provided with sufficient weapons and training to enable it to carry out its primary mission of defending the nation. Whenever possible, however, fulfillment of this mission should not be obtained at the expense of the environment.

Calhoun, *supra* note 12, at 26.

the land over to the private sector.²⁸⁹ Together, these factors raise serious questions about the future of congressional funding for defense environmental programs.

4. *The Future*--What do all of these concerns portend for the future of the DERA and military environmental programs? Not even the environmental experts agree on the answer.²⁹⁰ Although the cuts to the FY 1996 DERA budget were not as deep as anticipated, Congress's disenchantment with what it perceives as an overfunded, ineffective program will surely

²⁸⁹ Congress believed that the BRAC reductions would decrease defense costs significantly. Instead, they have resulted in increased costs in the near-term due to the tremendous up-front costs of preparing the bases for transfer as quickly and as safely as possible. See West, *supra* note 278, at 2-3 (citing H.R. REP. No. 137, 104th Cong., 1st Sess. 34-35 (1995) (noting Congress's concern with BRAC environmental activities and that, "As is the case with DERA, the appropriations committees want DOD to aggressively explore ways to reduce cleanup costs while expediting the cleanup process.")).

²⁹⁰ Mr. West originally predicted that "the committees having jurisdiction over the DOD budget are going to subject DOD environmental programs to intense scrutiny to target areas where funding can be cut. . . . DERA will remain the most likely source of cuts, and they could be on the order of \$300-\$400 million." West *supra* note 275, at 7. After the first session of the most recent Congress, which made adjustments to the DERA that he termed "modest," Mr. West has toned down his concern somewhat, but is still sure that "congressional DERA funding levels are likely to continue to decline in the foreseeable future." *Id.*

However, an "unnamed senior DOD official" does not expect the DOD's clean-up budget to decrease in FY 1997. *New Technologies, supra* note 252, at 1903. "DERA funds will still be in the \$1.4 billion to \$1.5 billion range," the article quotes the official as saying. However, it also indicates that the DOD is monitoring the Bosnia situation closely. *Id.*

result in continued budget reductions or, at the least, the status quo.²⁹¹ This does not bode well for the ultimate success of the military's clean-up efforts.

Despite dramatic increases in DERA funding from FY 1984 through FY 1994,²⁹² the amount was woefully insufficient when compared with the enormity of the DOD's task.²⁹³ A top-level Clinton Administration task force on federal facilities environmental restoration recently released an eye-opening report on future federal environmental efforts.²⁹⁴ The report

²⁹¹ "The recent 1994 election underscores the importance of adopting reforms, since the new congressional leadership has already made it clear that, at a minimum, it will subject DOD environmental programs to even greater congressional scrutiny." Wegman & Bailey, *supra* note 2, at 890-91; see also *supra* note 2.

²⁹² A recent report from the Congressional Budget Office (CBO) indicated that the DOD had spent approximately \$11 billion since 1984 to investigate and begin cleanups at contaminated sites. Rubin, *supra* note 2, at 36-37. "To keep these numbers in perspective, funding for defense environmental restoration represented approximately 0.1% of the total DOD budget in 1988. By 1994, restoration funding had risen to the level of approximately 1% of the DOD budget." Wegman & Bailey, *supra* note 2, at n.69 (citing *DOD's Env'tl. Cleanup: Hearings Before the Subcomm. on Military Readiness & Defense Infrastructure of the Senate Comm. on Armed Services*, 103d Cong., 1st Sess. 2-3 (1994) (prepared statement of Neil M. Singer, Acting Assistant Director, Nat'l Sec. Div., Congressional Budget Office)).

²⁹³ Currently, the average cost of a cleanup at an NPL site is \$25 to \$30 million. Prestley, *supra* note 14, at 65.

²⁹⁴ The task force, appointed by President Clinton in 1993 and named the "Federal Facilities Policy Group," is an interagency panel cochaired by Alice Rivlin, Director of the Office of Management and Budget (OMB), and Katie McGinty, Director of the CEQ.

indicated that it will cost between \$234 billion and \$399 billion to clean up "61,000 sites under four department secretaries and one administrator."²⁹⁵ One need not be overly skilled in mathematics to discern that current funding levels--which are set forth in detail at Appendix D²⁹⁶--pale in comparison to the amount that federal facilities need.²⁹⁷

Consequently, if complying with the CERCLA and the RCRA was difficult prior to these budget reductions, it is not

In addition to providing an ominous forecast for the future of federal facilities cleanups, the report called for statutory (CERCLA and RCRA), regulatory (land-use, risk-based priorities), and management (streamlined workforce, reduced overhead, consistent funding) reforms. It also pointed to the need for increased technology development and use. *Top Officials Call for Cleanup Reforms*, 6 DEF. CLEANUP 1, 1 (Oct. 20, 1995) [hereinafter *Top Officials*].

²⁹⁵ *Id.* The report estimates that the DOD's cleanup will take about 20 years and cost \$26.2 billion. *Id.* I believe that the DOD's costs will be much greater than the figures presented by the task force.

²⁹⁶ See *infra* Appendix D (chart depicting federal facilities environmental restoration spending).

²⁹⁷ In what may have been the "understatement of the year," Rivlin told a White House press gathering that "[t]here is a tension between the magnitude of the problem and the resources available." *Top Officials*; *supra* note 294, at 1.

However, the group pointed to department inefficiencies as a part of the overall problem, and indicated that the Clinton Administration will have to work extremely hard to overcome the difficulties presented by severe budget constraints. *Id.*

Remember that the number of sites being identified, the amount of contamination at each site, and the cost of the technology needed to remedy the contamination are all subject to change in the coming years.

going to get any easier. The Deputy Under Secretary of Defense (Environmental Security), Sherri Wasserman Goodman, summarized the problem well when she said, "recission[s] [and reductions] are unfunded mandates on DOD. We continue to be subject to the same laws and regulations, but Congress is taking away the money to do the work. If we don't perform this work, who will?"²⁹⁸ The simple truth is that federal facilities literally cannot afford to conduct cleanups at NPL sites at their present pace and cost.²⁹⁹ Congress must either provide the necessary funding³⁰⁰--which is unlikely³⁰¹--or develop a method for conducting cleanups more efficiently and economically.

²⁹⁸ Rubin, *supra* note 2, at 36.

²⁹⁹ "Recent signals from the Clinton Administration and the 104th Congress suggest that policy-makers faced with current fiscal realities, competing legislative priorities, and the possibility of civil and criminal sanctions, may be preparing to throw in the towel and abandon the concept of federally equivalent compliance altogether." Kassen, *supra* note 24, at 1513.

The article also notes that Thomas Grumbly, the OMB's Principal Assistant Deputy for Energy and Environment, indicated that, due to funding restrictions, his organization will likely not be able to meet its environmental obligations in the near future. *Id.*

³⁰⁰ See *id.* at 1515 (asserting that Congress must be committed to providing the funding federal facilities need to comply with environmental regulations, or environmental strategies will never succeed).

³⁰¹ See, e.g., *GOP Senators Would Abolish Defense Environmental Restoration Programs*, DEF. ENV'T ALERT, Dec. 14, 1994, at 11.

Numerous reasons exist to explain why the process of cleaning federal facilities is so painstakingly slow and expensive. Budget constraints, the lack of technology, the hazards posed by the various materials being removed, and the onerous requirements for investigations, inspections, studies, assessments, and reviews prior to actual cleanup³⁰² are but a few of these reasons. However, "regulatory gridlock"³⁰³ is perhaps the most significant reasons why federal facility cleanups are so costly and take so long to complete. Regulatory gridlock arises for federal facilities as the result of the RCRA/CERCLA interface.

³⁰² Fiscal year 1995 marked the first time that the DOD spent more on actual cleanups than it did on studies and administrative overhead. The DOD spent 61% on cleanups, up from 41% in FY 1994. Congress also set a goal that the DOD spend 80% of appropriated funds on cleanups, and only 20% on studies and investigations and administrative overhead. See *DOD Cleanup Cuts Eyed*, 234 ENGINEERING NEWS-REC. 13, 15 (Mar. 13, 1995); *Defense Program Conferees Trump Administration's Defense Plan, Authorize First Increase in Spending in Decade*, 64 FED. CONT. REP. 22, 22 (Dec. 18, 1995).

But see Rubin, *supra* note 2, at 37. Simply spending all of the money that Congress appropriates to the DERA for restoration activities is not the answer. Budget reductions and funds earmarked solely for cleanup "have the effect of eliminating site characterization studies, leaving remediation contractors shooting in the dark. If you don't know the extent of the contamination, how can you effectively choose a remedy?" *Id.* (quoting David Wang, Chief, California Department of Environmental Protection's special military facilities office).

³⁰³ See Calhoun, *supra* note 20, at 60. Calhoun uses this phrase to describe the overlap of responsibilities between the EPA headquarters, its ten regional offices, the environmental departments of 50 states, and county and local air and water boards.

IV. The Problem: An Analysis of the RCRA/CERCLA Interface

A. *The Overlapping Nature of the RCRA and the CERCLA*

The question appears simple on its face, "Do states have authority to enforce RCRA requirements³⁰⁴ during CERCLA cleanups at federal facility NPL sites?" Unfortunately, the answer has not been so simple. In the RCRA and the CERCLA, Congress failed to clarify which statute governs cleanups at these federal facility sites. As such, the application of federal environmental laws to the sites has been piecemeal. Congress also failed to indicate whether states or the EPA assume control at the sites. Consequently, the question remained unanswered for many years.³⁰⁵

Either the CERCLA, or the RCRA, or both, could apply at a federal facility hazardous waste site listed on the NPL.³⁰⁶

³⁰⁴ See, e.g., *infra* notes 344-56 and accompanying text (discussing RCRA requirements imposed by authorized state hazardous waste programs).

³⁰⁵ See Margaret N. Strand, *Federal-State Authority Disputes at Federal Facility Sites: A Study in Legislative Failure*, 4 FED. FACILITIES ENVTL. J. 9, 10 (Spring 1993). "Twelve years after enactment of Superfund, eight years after major amendments to RCRA, six years after SARA, and even after passage of the Federal Facilities Compliance Act of 1992, federal law remains unsettled on a critical, federal facilities issue: the authority of states to control cleanups at federal property listed on the National Priorities List (NPL)." *Id.*

³⁰⁶ See Noskin, *supra* note 26, at 173 (indicating that "[a]lthough RCRA and CERCLA have some very distinct

The inability to reconcile the two statutes was at the core of the controversy surrounding federal facility NPL site cleanups until April, 1993. Then, the United States Court of Appeals for the Tenth Circuit (Tenth Circuit) answered the question in the affirmative in *United States v. Colorado*.³⁰⁷

Accordingly, federal facilities, depending on the circumstances, are subject to both federal and state control of their cleanups. Federal control occurs when the EPA implements the CERCLA, while states may use their delegated RCRA authority attempting to control the cleanup.³⁰⁸ This overlapping authority results in increased requirements for federal facilities. This increase, in turn, causes greater costs, delays, and frustration in the clean-up process.

1. *How the Overlap Occurs*--Congress designed the RCRA to be prospective, or preventative,³⁰⁹ and the CERCLA retroactive,

differences, the two laws frequently interact"). The article provides a "general overview of several specific aspects of RCRA's applicability to CERCLA cleanups." *Id.*

³⁰⁷ 990 F.2d 1565 (10th Cir. 1993), *cert. denied*, 127 L. Ed. 2d 216 (1994). See *supra* notes 375-407 and accompanying text (providing a detailed discussion of the case).

³⁰⁸ "A hazardous waste site at a federal facility may be subject to either CERCLA or RCRA, or perhaps both, and state environmental laws; depending on the environmental problem, other federal laws may come into play as well." Strand, *supra* note 305, at 9, 10.

³⁰⁹ See *supra* notes 78-81 and accompanying text.

or curative.³¹⁰ Congress wanted the RCRA to regulate the generation, treatment, storage, and disposal of hazardous wastes, and the CERCLA to confront the disturbing problem of hazardous wastes disposed of prior to the RCRA's enactment. Ideally, the RCRA and the CERCLA would "complement each other to address comprehensively the management of newly-generated hazardous wastes and the cleanup of old wastes."³¹¹

In theory, Congress's plan for comprehensive coverage of the hazardous waste problem was sound. Yet considering the profound differences between the two statutes, "one would hope that the law would clearly delineate where each statute should apply. It does not."³¹² Congress's failure to indicate the circumstances in which each statute applies and who assumes control over the clean-up process has resulted in significant practical problems due to the overlapping nature of the statutes. These problems are discussed in detail at the conclusion of Part IV.³¹³

Congress actually created this ambiguity through the

³¹⁰ See *supra* notes 122-26 and accompanying text. See also *B.F. Goodrich v. Murtha*, 958 F.2d 1192, 1201 (2d Cir. 1992) (indicating that "RCRA is preventative, CERCLA is curative").

³¹¹ Noskin, *supra* note 26, at 173.

³¹² Strand, *supra* note 305, at 13.

³¹³ See *infra* notes 408-29 and accompanying text.

delegation of authority language that it placed in each statute.³¹⁴ Congress allowed the EPA to delegate much of its regulatory authority under the RCRA to the states. As such, the states were free to impose more stringent standards on TSDFs--such as federal facilities--than those contained in federal regulations.³¹⁵ Congress also included a waiver of sovereign immunity in the RCRA. This waiver subjects federal facilities to the states' authority.³¹⁶

However, with the CERCLA, Congress gave the EPA the authority to administer and implement the Act without allowing for any provision for delegating this authority to the states.³¹⁷ The CERCLA, at the very least, suggested that the EPA should control at NPL sites. The Act indicated that non-

³¹⁴ One commentator indicated that the statutes were drafted so poorly that Congress must have created the ambiguity "on purpose." "Indeed, the legal structure is so blatantly flawed as to support the notion that design rather than inadvertence is responsible. Congress must have knowingly decided that enhanced political mileage was available by subjecting federal agencies to a hopelessly confused and inadequate legal structure, under which environmental cleanup was doomed to repeated failure." Strand, *supra* note 305, at 9-10.

³¹⁵ *Id.* at 12. See Wegman & Bailey, *supra* note 2, at 900-02 & n.205 (indicating that many states--such as California--have standards that are more stringent than federal standards).

³¹⁶ Strand, *supra* note 305, at 12. See 42 U.S.C. § 6961(a); see also *infra* notes 328-39 and accompanying text (discussing RCRA's waiver of sovereign immunity).

³¹⁷ Strand, *supra* note 305, at 12; 42 U.S.C. § 9620(a)(4). Had either the CERCLA or the RCRA stated this clearly, the issue may never have arisen.

NPL federal facility sites were subject to state management of the clean-up process.³¹⁸ The implication was that federal facility NPL sites were not subject to state management--that is, that the CERCLA left management of these sites to the EPA. As such, the EPA controlled cleanups at CERCLA sites, unless the sites warranted application of the RCRA. When states attempted to apply the RCRA's provisions to the sites, conflicts arose over who controlled the cleanup and whether the states could enforce RCRA requirements at the sites.

B. Applying Environmental Laws to Federal Facilities

Prior to a more detailed discussion of the RCRA/CERCLA interface and the problems it presents, one need understand how environmental laws--federal, state, or local--apply to federal facilities.

Over the years, federal facilities have asserted a number of arguments in support of their contention that environmental laws do not apply to them as they do to private entities.³¹⁹

³¹⁸ 42 U.S.C. §§ 9620(a)(4), 9622(e)(6); Strand, *supra* note 305, at 12.

³¹⁹ See Kassen, *supra* note 24, at 1477-78. "As Senator Stafford characterized the federal agencies' stance during the floor debate on the amendments to Superfund: 'No loophole, it seems, is too small to be found by the federal government.'" *Id.* at 1478 & n.12 (citing 132 CONG. REC. S14,903 (daily ed. Oct. 3, 1986), reprinted in Adam Babich, *Does the Sovereign Have a License to Pollute?*, 6 NAT. RESOURCES & ENV'T, Summer 1991, at 28).

They have based their arguments on, among other things, the unitary executive theory,³²⁰ sovereign immunity,³²¹ national security,³²² and "the vagaries of federal budgeting that preclude the expenditure of money for activities that Congress has not authorized and for which the Congress has not appropriated funds."³²³

1. *The Unitary Executive Theory*--In short, this "theory"

³²⁰ See *infra* notes 324-27 and accompanying text.

³²¹ See *infra* notes 328-39 and accompanying text.

³²² In recognition of the unique conditions under which defense agencies operate, Congress has consistently recognized the potential need to exempt certain military activities from compliance with environmental laws. Thus, virtually every environmental statute contains a provision that authorizes the President to exempt an activity from compliance, if to do so is in the "paramount interest" of the United States.

Kassen, *supra* note 24, at 1479. The President has granted exemptions based on the "paramount interest" clause less than ten times, all in cases of natural disasters. *Id.* at 1479 & n.22. Courts quickly dismiss these claims because the government must seek the exemption from the President, not the court. *Id.* at 1479. Thus, the defense has not proved to be that useful for the government. Nevertheless, the government continued to assert that it need not comply with certain environmental statutes because of its national security interests.

³²³ *Id.* at 1478 (citation omitted). Federal facilities frequently use "insufficient funds" as a defense for their failure to comply with various environmental statutes. These facilities claim that the Anti-Deficiency Act prohibits them from spending money "in excess of appropriations made by Congress for that fiscal year." Pub. L. No. 59-28, § 3679, 34 Stat. 27, 49 (1906); 31 U.S.C. § 1341; Kassen, *supra* note 24, at 1477-78.

was based on a Justice Department ruling during the Reagan Administration that one branch of the federal government could not sue another branch.³²⁴ Obviously, this ruling "severely hamstrung the enforcement capabilities" of the EPA.³²⁵ Under the theory, only the President--not any single agency--had the power to resolve interagency (i.e., DOD and EPA) disputes. Legal commentators have identified two reasons for this approach:

(1) The EPA lacked the power to compel a sister agency to act; or

(2) No case or controversy existed to invoke federal court jurisdiction when the government sued itself.³²⁶

Congress failed to accept the theory as legitimate, however, and continued to grant the EPA authority to enforce environmental regulations against other executive branch

³²⁴ See Calhoun, *supra* note 20, at 60. "The Department of Justice (DOJ) succinctly articulated its version of a unitary executive before Congress in 1983 and 1987." Millan, *supra* note 35, at 345 & n.14 (citing OFFICE OF FED. ACTIVITIES, EPA, FEDERAL FACILITIES COMPLIANCE STRATEGY, III-6, app. H (letter from R. McConnell, DOJ, to Rep. John Dingell, and statement of F. Habicht, II, DOJ) (1988)). Professor Millan's article provides an excellent discussion of the unitary executive theory. See *id.* at 340-70.

³²⁵ Calhoun, *supra* note 20, at 60.

³²⁶ Millan, *supra* note 35, at 340.

agencies. Nevertheless, the EPA used this grant of authority sparingly.³²⁷

2. *Sovereign Immunity*--When Congress enacted the first environmental statutes giving state and local authorities certain regulatory powers,³²⁸ federal facilities initially claimed that the doctrine of sovereign immunity relieved them of the duty to comply. They also claimed that the doctrine immunized them from paying fines and penalties for their failure to comply.³²⁹ Two well-known instances exist in which this occurred. The first involves the DOD's resistance to the state of Colorado's enforcement of the RCRA at the Rocky

³²⁷ Kassen, *supra* note 24, at 1484.

³²⁸ In the Clean Water Act, 33 U.S.C. § 1323 (1970), the Clean Air Act, 42 U.S.C. § 7418 (1972), and, ultimately, the Resource Conservation and Recovery Act, 42 U.S.C. § 6961 (1976), Congress provided for federal facility compliance with state laws.

³²⁹ This doctrine, "in its most fundamental terms . . . comes from the historical tradition that 'the king can do no wrong.'" Laurent R. Hourcle & William J. McGowan, *Federal Facility Compliance Act of 1992: Its Provisions and Consequences*, 3 FED. FACILITIES ENVT'L. J. 359, 360 (Winter 1992-93). The article also indicates that in its present application, the term "means that the United States and its agencies can be held accountable to states or citizens for their actions only to the extent that the United States permits itself to be held accountable. Federal agencies need not comply with (or are immune from) state and local laws or other legal requirements unless the U.S. Congress expressly legislates away that immunity." *Id.*

See Kassen, *supra* note 24, at 1491 (citing *Hancock v. Train*, 426 U.S. 167, 179-80 (1976)) (stating that "for a state to sue a federal agency for enforcement of an environmental statute, the federal government must waive its sovereign immunity from such a suit").

Mountain Arsenal.³³⁰ The second concerns the DOE's resistance to the state of Ohio's attempts to enforce the RCRA and the Clean Water Act (CWA) at the DOE's Fernald Plant near Cincinnati, Ohio.³³¹

Initially, courts had unanimously held that Congress had not adequately waived sovereign immunity in either the CWA or the Clean Air Act (CAA).³³² As a result, when Congress enacted the RCRA in 1976, it included "the most explicit waiver of sovereign immunity that it could conceive at the time."³³³

³³⁰ See *id.* at 1485 & n.58; see also *infra* notes 375-407 and accompanying text (discussing the Army's Rocky Mountain Arsenal litigation).

³³¹ See Kassen, *supra* note 24, at 1485 & n.58; see also Linda C. Dolan, *Looking Ahead at the Fernald Environmental Management Project*, 3 FED. FACILITIES ENVTL. J. 197, 199-200 (Summer 1992) (discussing the DOE's Fernald Environmental Management Project).

³³² See *Hancock v. Train*, 426 U.S. 167, 198 (1976) (Congress did not adequately express its waiver of sovereign immunity in the CAA); *Environmental Protection Agency v. California ex rel. State Water Resources Control Board*, 426 U.S. 200, 210, 227 (1976) (a waiver of sovereign immunity must be "clear and unambiguous" in its statutory context. Congress did not adequately express its waiver of sovereign immunity in the CWA.). See also Lieutenant Commander Marc G. Laverdiere, *Another Victory in the Unwinnable War over Civil Penalties: Maine v. Department of the Navy*, 142 MIL. L. REV. 165, 167-68 (1993) (discussing case law standard for sovereign immunity); Kassen, *supra* note 24, at 1492 & n.111 (citing Robert Percival, *Interpretive Formalism: Legislative Reversals of Judicial Constructions of Sovereign Immunity Waivers in the Environmental Statutes*, 43 WASH. U. J. URB. & CONTEMP. L. 221 (1993) ("general discussion of how narrowly the Supreme Court, in particular, and federal courts, in general, have read sovereign immunity waivers in environmental statutes"))).

³³³ Kassen, *supra* note 24, at 1492; 42 U.S.C. § 6961(a). The RCRA waiver of sovereign immunity states, in part:

Nevertheless, federal facilities continued to assert that states could not enforce the RCRA at federal facility sites.³³⁴ A number of federal courts agreed with the federal facilities' assertions.³³⁵

The Supreme Court considered this issue in *United States Department of Energy v. Ohio*.³³⁶ The Court held that the waivers of sovereign immunity in "the then-current Clean Water Act and the solid and hazardous waste provisions of RCRA . . . were not broad enough" to allow states to enforce provisions of the statutes on federal facilities.³³⁷ Accordingly,

Each department, agency, and instrumentality of the executive . . . branch of the Federal Government . . . shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural (including any requirement for permits or reporting or any provisions for injunctive relief and such sanctions as may be imposed by a court to enforce such relief), respecting control and abatement of solid waste or hazardous waste disposal in the same manner, and to the same extent, as any person is subject to such requirements.

42 U.S.C. § 6961(a).

³³⁴ President Carter even issued an executive order in 1978 directing that all federal facilities comply with environmental orders. However federal facilities largely ignored the order. See Calhoun, *supra* note 20, at 60.

³³⁵ See *Mitzenfelt v. Department of the Air Force*, 903 F.2d 1293, 1294-95 (10th Cir. 1990) (no waiver of sovereign immunity in RCRA); *McClellan Ecological Seepage Situation (MESS) v. Weinberger*, 655 F. Supp. 601 (E.D. Calif. 1986) (same).

³³⁶ 112 S. Ct. 1627 (1992).

³³⁷ Hourcle & McGowan, *supra* note 329, at 361.

Congress recognized the need to enact legislation "to clarify--or reaffirm--the broad scope of the RCRA waiver."³³⁸ In 1992, Congress did just that, passing the Federal Facilities Compliance Act of 1992 (FFCA).³³⁹

3. *The FFCA and Sovereign Immunity*--The FFCA expressly waived the sovereign immunity of the United States under the RCRA.³⁴⁰ As such, states could now fine federal facilities for

³³⁸ Kassen, *supra* note 24, at 1493 (citing H.R. REP. No. 886, 102d Cong., 2d Sess. 1, 17 (1992)). See Hourcle & McGowan, *supra* note 329, at 361 (indicating that the primary purpose of the Act was to ensure a complete waiver of sovereign immunity); see also 138 CONG. REC. H8864 (daily ed. Sept. 22, 1992), which stated that:

The Conference substitute also makes clear that sovereign immunity is expressly waived with respect to any substantive or procedural provision of the law. In doing so the conferees reaffirm the original intent of Congress that each department, agency, instrumentality, agent employee and officer of the United States shall be subject to all of the provisions of federal, state and local solid waste and hazardous waste laws and regulations.

³³⁹ Pub. L. No. 102-386, 106 Stat. 1505 (1992) (codified at scattered sections of 42 U.S.C.). The Act was signed into law by the President on October 6, 1992. The FFCA only concerns the waiver of sovereign immunity under the solid and hazardous waste provisions of the RCRA. It does not apply to the waiver of sovereign immunity under the CAA, the CWA, or any other environmental statute. See Hourcle & McGowan, *supra* note 329, at 359 & n.2 (providing an excellent analysis of the FFCA).

³⁴⁰ [T]he federal government . . . shall be subject to and comply with, all Federal, State, interstate and local requirements . . . respecting control and abatement of solid waste or hazardous waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements

failure to comply with state-authorized RCRA programs at federal facility sites.³⁴¹ Thus, one of the obstacles to full state participation in federal facility cleanups had been removed.³⁴²

The one remaining obstacle involved how the EPA and federal facilities construed the CERCLA and the SARA. Their interpretation of these statutes "relegated to [the] states a largely advisory role" in the cleanups of federal

. . . .

The Federal, State, interstate and local substantive and procedural requirements referred to in this subsection include, but are not limited to, all administrative orders and all civil and administrative penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or imposed for isolated, intermittent, or continuing violations. The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge).

42 U.S.C. § 6961(a). See Kassen, *supra* note 24, at 1493-94; Hourcle & McGowan, *supra* note 329, at 363-64.

³⁴¹ John F. Seymour, *Tenth Circuit Rules that States May Enforce RCRA Requirements during Federal Facility Cleanups*, 4 FED. FACILITIES ENVTL. J. 245, 245 (Summer 1993).

³⁴² *Id.*

facilities.³⁴³ However, the Tenth Circuit's decision in *United States v. Colorado* "clarified" the state's role, rejected the government's assertions, and agreed with the state's interpretation of the statutes. Prior to analyzing the issues considered in the Tenth Circuit's decision, however, a brief look at the affect of the RCRA, CERCLA, and SARA on federal facilities' compliance is necessary.

4. The RCRA--Pursuant to the FFCA's waiver of sovereign immunity as to the RCRA, states have the right to enforce their authorized RCRA programs at federal facilities. This translates into fines, penalties, and criminal prosecution for those military bases and personnel who do not comply with the states' mandates under their RCRA programs.³⁴⁴ States need only obtain the EPA's approval to run their own hazardous waste programs.³⁴⁵ To grant approval, the EPA must determine that the state's program is no less rigorous than, and consistent with, the EPA's program, other authorized state

³⁴³ *Id.*

³⁴⁴ Calhoun, *supra* note 12, at 21.

³⁴⁵ 42 U.S.C. § 6926(b). See Jerome M. Organ, *Limitations on State Agency Authority to Adopt Environmental Standards More Stringent Than Federal Standards: Policy Considerations and Interpretive Problems*, 54 MD. L. REV. 1373, 1375 & n.10 (1994) (indicating that the EPA has authorized over 40 states to administer the CAA, CWA, and RCRA, that they have agreed to incur the costs associated with administering the program, and that they are willing to do so to gain primary enforcement authority in lieu of the EPA).

programs, and subtitle C of the RCRA.³⁴⁶ Congress has granted the states the "right to administer the regulatory program and/or the authority to impose standards more stringent than the federal environmental statute required."³⁴⁷ States frequently exercise a greater range of enforcement tools at federal facilities than the EPA can, or will.³⁴⁸

a. *The RCRA "Corrective Action" Requirements*--In 1984, Congress amended the RCRA's sections dealing with permits.³⁴⁹ As such, RCRA permits now must require a TSD operator or owner³⁵⁰ to take "corrective action" to stop ongoing releases of hazardous waste, from any solid waste management units (SWMU), that pose a threat to human health and the environment.³⁵¹ The amendments also mandated that

³⁴⁶ 42 U.S.C. § 6929; 40 C.F.R. pts. 271-72; see Diner Interview, *supra* note 79 (discussing state hazardous waste programs); see also *Federalism and Hazardous Waste*, *supra* note 4, at 1534 & n.70 (discussing EPA approval of state programs).

³⁴⁷ Organ, *supra* note 345, at 1374-75 (citing the RCRA, 42 U.S.C. § 6926).

³⁴⁸ The EPA is somewhat limited in the enforcement actions it can take, whereas the states are not. Diner Interview, *supra* note 79.

³⁴⁹ Hazardous and Solid Waste Act of 1984, Pub. L. No. 98-616, 98 Stat. 3221 (1984) (codified as amended at scattered sections of 42 U.S.C.). These amendments pertained to all RCRA permits issued after November 8, 1984.

³⁵⁰ Most federal facilities fall squarely within this category.

³⁵¹ 42 U.S.C. § 6924(u); 40 C.F.R. § 264.101(a). Diner Interview, *supra* note 79 (providing a detailed discussion of RCRA's corrective action provisions). A SWMU is any area on a

permits require corrective action to clean up past releases of such wastes from any SWMU.³⁵²

The EPA has not issued final implementing regulations for these amendments yet. However, it did issue proposed regulations in 1990, which states currently use to draft corrective action requirements for permits.³⁵³ These regulations indicated that on determining that a release has occurred, RCRA-regulated facilities must complete a RCRA Facility Assessment³⁵⁴ (RFA)--the functional equivalent of the preliminary assessment/site inspection (PA/SI) under the CERCLA. If the RFA determines that a SWMU is releasing hazardous wastes into the environment, the regulations require a RCRA Facility Inspection³⁵⁵ (RFI)--again, the parallel of a remedial investigation (RI) under the CERCLA. Finally, the regulations require a Corrective Measures Study³⁵⁶ (CMS)--contingent on the findings of the RFI--which is almost

facility where hazardous waste was collected, separated, stored, transported, processed, treated, recovered, or disposed of. *Id.*

³⁵² 42 U.S.C. § 6924. The corrective action requirements can, and do, extend beyond the federal facility's boundaries if such action is required to protect human health and the environment. *Id.* § 6924(v).

³⁵³ 55 Fed. Reg. 30,852, 30,978 (1990). Diner Interview, *supra* note 79 (discussing the EPA's proposed regulations).

³⁵⁴ 55 Fed. Reg. 30,852, 30,978 (1990).

³⁵⁵ *Id.*

³⁵⁶ *Id.*

identical to the feasibility study (FS) under the CERCLA.

On completion of these assessments, studies, and investigations, RCRA regulators will select a remedy for the cleanup. They are not required to consider the cost effectiveness of a potential remedy, as required by the CERCLA, except in cases where two or more remedies are otherwise equal. As a result of *United States v. Colorado*, states can enforce these RCRA corrective action requirements at federal facility clean-up sites, even if the facility is already conducting a cleanup pursuant to the CERCLA.

5. *The CERCLA and the SARA*--The CERCLA's statutory mandates place essentially the same requirements on federal and private facilities. Pursuant to the Superfund amendments in 1986 (SARA), Congress added section 120 to the CERCLA.³⁵⁷ Again, this section subjects federal facilities to the CERCLA in the same manner as private facilities, to include liability for hazardous waste sites.³⁵⁸ Section 120(a) "dictates that

³⁵⁷ 42 U.S.C. § 9620.

³⁵⁸ Henley, *supra* note 74, at 12. The thesis also indicates that

[w]hile subject to the same provisions of CERCLA, there are several factors distinguishing federal/military facilities from privately owned sites. First, cleanup of federal sites usually involves a program that is national in scope and often similar to EPA's Superfund program, such as the Defense Environmental Restoration Program. This means hundreds of sites across the country are

the same substantive and procedural requirements applicable to private parties apply to federal entities as well."³⁵⁹

However, the SARA also set out certain unique requirements for federal facilities.³⁶⁰

competing for scarce resources. Second, taxpayer dollars are the exclusive source of revenue to pay for cleanup activities at federal facilities. This means availability and allocation of resources is contingent upon annual congressional appropriation decisions. Third, federal ownership implies a level of permanence and stability not found at privately owned sites. Fourth, existing use and access restrictions usually exceed those present at privately owned sites. This means risks based on exposure can be more easily controlled and the range of realistic future uses for federal facilities easier to predict. Fifth, sections 120 and 121 require federal facilities to comply with procedures and requirements inapplicable to privately owned sites.

Id. at n.119.

³⁵⁹ Robert A. Weissman & Christina A. Maier, *Liability and Cost Allocation at Federal Facilities*, 3 *FED. FACILITIES ENVTL. J.* 163, 163 (Summer 1992). Section 120(a)(1) states that

[e]ach department, agency, and instrumentality of the United States (including the executive, legislative, and judicial branches of government) shall be subject to, and comply with, this chapter in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity, including liability under section 9607 of this title. Nothing in this section shall be construed to affect the liability of any person or entity under sections 9606 and 9607 of this title.

42 U.S.C. § 9620(a)(1).

³⁶⁰ See Woolford, *supra* note 262, at 386; 42 U.S.C. § 9620; Exec. Order No. 12,136, 3 C.F.R. § 168 (1981), reprinted in 1981 U.S.C.C.A.N. B70 (indicating that the DOD is now liable under CERCLA for hazardous waste spills from installations or vessels).

a. *The Cleanup Process*--The SARA created a clean-up process which all federal facilities must follow.³⁶¹ This process includes establishing a Federal Agency Hazardous Waste Compliance Docket (HWCD),³⁶² which is a listing of all federal facilities at which hazardous wastes have been treated, stored, or disposed, or at which reportable quantities of hazardous wastes have been released.³⁶³ Once the EPA places a facility on the docket, the SARA requires that the federal facility begin a preliminary assessment of the site within eighteen months, for possible inclusion on the NPL.³⁶⁴ If the

³⁶¹ Federal facilities must follow "all guidelines, rules, regulations, and criteria . . . applicable to evaluations . . . under the NCP . . . and inclusion on the NPL." 42 U.S.C. § 9620(a)(2). Note, however, the potential problems that arise in attempting to follow the NCP. The 1990 revised NCP excluded the section dealing with the environmental restoration programs at federal facilities. See Henley, *supra* note 74, at 12 & n.121.

³⁶² 42 U.S.C. § 9620(c). The SARA assigned this responsibility to the EPA. See 58 Fed. Reg. 7298 (1993) (indicating purposes of HWCD).

³⁶³ Woolford, *supra* note 262, at 387. Presently, the EPA has listed 2070 federal facilities on the HWCD. See *supra* note 197 (discussing the CERCLIS Hotline).

³⁶⁴ 42 U.S.C. § 9620(d). The EPA will score a facility on the Hazard Ranking System (HRS)--which measures the threat posed by a site--based on the sampling data that the federal facility obtains in the PA. See Woolford, *supra* note 262, at 386.

The EPA generally will list a facility, such as a military installation, "fenceline-to-fenceline." See West, *supra* note 275, at 4; Woolford, *supra* note 262, at 387 (referring to this as "fence-to-fence"). The term "fenceline-to-fenceline" refers to listing the entire military installation "even if the actual contaminated areas comprise only a small portion of the facility." *Id.* The EPA's procedure has caused problems for installations identified for closure under BRAC. In

EPA includes the site on the NPL, the SARA requires that the federal facility commence a remedial investigation/feasibility study (RI/FS) within six months.³⁶⁵

The purpose of the RI is to acquire sufficient information from which the federal facility may develop potential remedies.³⁶⁶ The FS phase allows the facility to further develop and evaluate these potential remedies.³⁶⁷

Once the RI/FS is complete, the federal facility has 180 days to enter into an interagency agreement (IAG) with the

response, the EPA issued two memoranda on August 10, 1995, in an effort to alleviate this problem. See *NPL Site Listings Clarified Through EPA Guidance Documents*, Nat'l Env'tl. Daily (BNA) (Aug. 14, 1995).

The first memorandum clarifies that the EPA does not list sites on a fenceline-to-fenceline basis, but only considers contaminated portions of a facility superfund sites. *Id.* The second memorandum transmits a "Model Comfort Letter" for distribution to purchasers of land at BRAC sites. The letter indicates that "liability will not be imposed on purchasers of property just because the parcel of land lies within the area used to describe an NPL site. Liability is based on the presence of contamination." *Id.*

The EPA considers the clarifications in its memoranda sufficient to remedy any concerns over the listing of federal facilities on the NPL. However, the EPA requires the federal facility to prove that these contaminated areas "represent the full and actual area of contamination." Woolford, *supra* note 262, at 387. Due to the sheer size of many installations, especially when compared to most privately owned waste sites, the burden on federal facilities to prove that all other areas are not contaminated is enormous.

³⁶⁵ 42 U.S.C. § 9620(e)(1).

³⁶⁶ 40 C.F.R. § 300.430(d).

³⁶⁷ *Id.* § 300.430(e).

EPA.³⁶⁸ These IAGs are designed to govern the cooperative efforts of the EPA and the federal facility, and many times the states.³⁶⁹ The IAGs offer the potential to avoid the almost inevitable disputes between states and federal facilities over cleanups at federal facility NPL sites.

Finally, the EPA required that the federal facility, after notice to the public and an opportunity to comment, publish a Record of Decision (ROD) announcing the remedy selected.³⁷⁰ The SARA required that the facilities' remedy selections be "protective of human health and the environment, cost-effective, and use permanent solutions and alternative treatment technologies to the maximum extent practicable."³⁷¹

³⁶⁸ 42 U.S.C. § 9620(e)(2). The DOD's policy (as well as the EPA's) is to enter into the IAG when the EPA proposes the site for inclusion on the NPL, or even during the RI/FS phase. Woolford, *supra* note 262, at 388.

³⁶⁹ Violation of these IAGs can result in the EPA issuing a fine against the federal facility. 42 U.S.C. § 9609(a)(1)(E). The DOE paid \$100,000 for violating the IAG at its plant in Fernald, Ohio. See Dolan, *supra* note 331, at 199-200. Note that the DOD's policy is to encourage state involvement in the IAG, in an attempt to avoid significant problems later in the clean-up process. See also *infra* notes 464-69 and accompanying text (discussing IAGs in greater detail).

³⁷⁰ 40 C.F.R. §§ 300.430(f)(3), 300.430(f)(4), 300.430(f)(5). The factors that the EPA requires federal facilities to consider in the ROD are found at *id.* § 300.430(f)(5)(ii).

³⁷¹ 42 U.S.C. § 9621(b)(1) (emphasis added). If the selected remedy does not meet the permanency criteria, the SARA also requires that the facility publish an explanation as to why it does not. *Id.*

The EPA must concur with the selected remedy, as the SARA granted the agency final decision-making authority on remedies at NPL sites.³⁷²

b. *Funding*--The SARA prohibits the use of Superfund money for remedial activities at federal facility sites.³⁷³ Federal facilities use separate appropriations to fund the costs associated with the clean up of hazardous waste sites. The DERA must fund all remedial activities at the DOD's hazardous waste sites, except at those sites identified for closure under BRAC.³⁷⁴ Now, with an understanding of Congress's intent as to the application of these environmental laws to federal facilities, I will consider the Tenth Circuit's application of them in *United States v. Colorado*.

³⁷² *Id.* § 9621(a). The SARA "divides states' jurisdiction between NPL and non-NPL federal facilities, giving states lead responsibility at federal facilities that were not on the NPL." Kassen, *supra* note 24, at 1495. The SARA "also provided that the EPA Administrator shall allow 'state and local officials the opportunity to participate in the planning and selection of the remedial action.'" *Id.*; see also 42 U.S.C. §§ 9620(a)(4), (f), and 9621(f). States participate in this process by recommending ARARs--applicable or relevant and appropriate requirements (state cleanup standards)--for use at the site. As the lead agency, the federal facility determines which clean-up standards are ARAR.

³⁷³ 42 U.S.C. § 9611(e)(3). Nonfederal sites listed on the NPL qualify for Superfund money. *Id.* § 9611.

³⁷⁴ See *supra* note 270 and accompanying text.

C. United States v. Colorado: An Aberration?

Pursuant to the Tenth Circuit's decision in *United States v. Colorado*,³⁷⁵ states may enforce their RCRA authority (state hazardous waste programs) at federal facility clean-up sites that also fall under the CERCLA's control. The Tenth Circuit rejected the government's argument that "states are precluded from enforcing RCRA requirements at federal facilities during Superfund remediations."³⁷⁶ The decision grants states the authority to enforce their RCRA programs even if the facility is on the NPL and has started an RI/FS under the CERCLA.³⁷⁷

1. *Rocky Mountain Arsenal*--Located approximately ten miles from downtown Denver, Colorado, the Rocky Mountain Arsenal is the former home to incendiary and chemical weapons manufacturing.³⁷⁸ Owned by the government since 1942, the Army operated the Arsenal up until the mid-1980s.³⁷⁹ In the early 1950s, local farmers complained that the Arsenal had

³⁷⁵ 990 F.2d 1565 (10th Cir. 1993), cert. denied, 127 L. Ed. 2d 216 (1994).

³⁷⁶ Seymour, *supra* note 341, at 245 (emphasis added).

³⁷⁷ *Id.* at 245. See *infra* notes 408-12 and accompanying text (discussing the RCRA/CERCLA interface).

³⁷⁸ Ensign Jason H. Eaton, *Creating Confusion: The Tenth Circuit's Rocky Mountain Arsenal Decision*, 144 MIL. L. REV. 126, 132 (1994).

³⁷⁹ 990 F.2d at 1565.

contaminated their wells.³⁸⁰ In response, the Army constructed Basin F, a "ninety-three acre surface impoundment area designed to keep toxins from entering the earth."³⁸¹ Unfortunately, the basin's liner leaked.³⁸² Wastes spilled into the surrounding lands and contaminated both ground and surface waters adjacent to the Arsenal.³⁸³ The litigation between Colorado and the Army focused on Basin F.

2. *The Prior Litigation*--During the early 1980s, Colorado had served the Army with several deficiency notices requiring it to prepare a closure plan for the basin under the state's authorized RCRA program.³⁸⁴ The Army's reply indicated that it was conducting an interim clean-up action pursuant to the CERCLA. As such, the Army believed that Colorado was

³⁸⁰ Eaton, *supra* note 378, at 132 (citing Daigle v. Shell Oil Co., 972 F.2d 1527, 1531 (10th Cir. 1992)).

³⁸¹ *Id.* The basin, a phosphorescent toxic lake that glowed "ominously beneath the majestic Rocky Mountains," was considered "the centerpiece of a forsaken tract of land some believe to be the earth's most toxic square mile." SHULMAN, *supra* note 4, at xi.

³⁸² Eaton, *supra* note 378, at 132 (citing Vicky L. Peters, *Can States Enforce RCRA at Superfund Sites? The Rocky Mountain Arsenal Decision*, 23 *Envtl. L. Rep.* (Envtl. L. Inst.) 10,419 (July 1993)).

³⁸³ *Id.*

³⁸⁴ Seymour, *supra* note 341, at 246. The EPA had approved Colorado's hazardous waste program in lieu of the RCRA, pursuant to 42 U.S.C. § 6926(b). See Eaton, *supra* note 378, at 132 & n.61 (citing 49 Fed. Reg. 41,036 (Oct. 19, 1984); COLO. REV. STAT. §§ 25-15-303--25-15-310 (1993)).

precluded from enforcing its RCRA authority at the site.³⁸⁵

Colorado responded by issuing its own closure plan for the basin. The Army informed Colorado that it would not implement this plan, questioned Colorado's authority over the Army's cleanup,³⁸⁶ and indicated that it would continue with its CERCLA interim response action.³⁸⁷ Colorado subsequently filed suit in the state court.³⁸⁸ The Colorado District Court found for the state, basing its holding on the government's failure to place the site on the NPL.³⁸⁹

The EPA listed the basin on the NPL one month after the district court's order. The government then sought reconsideration of this order, but subsequently filed a second suit seeking a declaration that the state had no authority to enforce its hazardous waste laws on the federal facility.³⁹⁰

³⁸⁵ Seymour, *supra* note 341, at 246.

³⁸⁶ United States v. Colorado, 990 F.2d at 1565, 1568 (10th Cir. 1993), *cert. denied*, 127 L. Ed. 2d 216 (1994).

³⁸⁷ *Id.*; see also Eaton, *supra* note 378, at 133.

³⁸⁸ Colorado v. Department of Army, 707 F. Supp. 1562 (D. Colo. 1989). The Army removed the action to the United States District Court for the District of Colorado (Colorado District Court).

³⁸⁹ *Id.* at 1562, 1569-70 (citing 42 U.S.C. § 9620(a)(4)). Section 120(a)(4) provides that state hazardous waste programs control at non-NPL sites.

³⁹⁰ United States v. Colorado, 1991 WL 193,519 (D. Colo. 1991), *rev'd in part*, 990 F.2d 1565 (10th Cir. 1993), *cert. denied*, 114 U.S. 922 (1994). See Eaton, *supra* note 378, at

This time, the Colorado District Court held for the Army, indicating that CERCLA section 113(h) barred Colorado's enforcement of its Health Department's order³⁹¹ as an impermissible challenge to a CERCLA response (clean-up) action.³⁹² However, the Tenth Circuit reversed the district court's decision.³⁹³

128.

³⁹¹ The Colorado Department of Health (CDH) had issued the deficiency notices mentioned previously to the Army requiring it to develop a closure plan for the basin.

³⁹² *United States v. Colorado*, 1991 WL 193,519 (D. Colo. 1991), *rev'd in part*, 990 F.2d 1565 (10th Cir. 1993), *cert. denied*, 114 U.S. 922 (1994). Section 113(h) of the CERCLA states as follows: "No federal court shall have jurisdiction under Federal law . . . to review any challenges to removal or remedial action selected under section 9604 . . . or to review any order issued under 9606(a)." 42 U.S.C. § 9613(h). Section 113(h) "limits federal court jurisdiction to review challenges to CERCLA response actions." Seymour, *supra* note 341, at 246-47. See *Alabama v. Environmental Protection Agency*, 871 F.2d 1548, 1557-59 (11th Cir.), *cert. denied*, 493 U.S. 991 (1989) (section 113(h) precludes judicial review until clean-up process is complete); *Schalk v. Reilly*, 900 F.2d 1091 (7th Cir.), *cert. denied*, 498 U.S. 981 (1990) (same). See also Eaton, *supra* note 378, at 131 (discussing section 113(h) in detail).

The Colorado District Court accepted the government's argument that section 113(h)'s restriction on pre-enforcement review barred the state from enforcing its hazardous waste program at the site (which the court considered an attempt to obtain pre-enforcement review). See *id.* at 133.

The Colorado District Court also based its decision in favor of the Army on the EPA's listing of the basin on the NPL. In doing so, it impliedly relied on 42 U.S.C. § 9620(a)(4) (which dictates the CERCLA's application to federal facilities) and, at the least, impliedly ruled that the CERCLA controls cleanups at NPL sites. *United States v. Colorado*, 990 F.2d 1565, 1569 (10th Cir. 1993), *cert. denied*, 127 L. Ed. 2d 216 (1994).

³⁹³ *United States v. Colorado*, 990 F.2d at 1565.

3. Analyzing the Tenth Circuit's Decision--

a. Section 113(h)--The Tenth Circuit initially disagreed with the district court on CERCLA section 113(h)'s limitations. The Tenth Circuit found that Colorado's actions did not constitute a "challenge" but, instead, a "legitimate enforcement of independent state laws."³⁹⁴ Thus, it held that section 113(h) did not preclude Colorado from enforcing its

³⁹⁴ Seymour *supra* note 341, at 247. The Tenth Circuit believed that Congress, in section 113(h), was trying to prevent dilatory, interim lawsuits that would ultimately slow down the clean-up process. The court held that Colorado's actions sought only to force the Army to comply with its order, not to delay the clean-up process. *Id.* at 247-48.

The Tenth Circuit looked to CERCLA sections 302(d) and 114(a) in making its decision. Section 302(d) (the "savings provision") states that "nothing in [the CERCLA] shall affect or modify in any way the obligations or liabilities of any person under other Federal or State law." 42 U.S.C. § 9652(d). The Tenth Circuit interpreted this as saying that "the CERCLA was designed to work with, and not repeal, other hazardous waste laws." Eaton, *supra* note 378, at 135 (citing *United States v. Colorado*, 990 F.2d 1565, 1575 (10th Cir. 1993)).

The Tenth Circuit also cited section 114(a), which states that "nothing in the [CERCLA] shall be construed or interpreted as preempting any State from imposing any additional liability or requirements with respect to the release of hazardous substances within such State." 42 U.S.C. § 9614(a).

The Tenth Circuit held that the district court's decision violated both of these provisions. First, the decision modified the Army's obligations and liabilities under Colorado's hazardous waste program (section 302(d)). Second, it preempted the state from imposing additional requirements on the release of hazardous substances (section 114(a)). The Tenth Circuit viewed these two provisions as preserving Colorado's authority to take action consistent with its own EPA approved hazardous waste laws. Seymour, *supra* note 341, at 247-48.

hazardous waste program.

b. *Section 120(a)(4)*--The Tenth Circuit also disagreed with the district court on the limitations contained in CERCLA section 120(a)(4). The Tenth Circuit found the district court's holding--that this provision barred state enforcement at an NPL site during a Superfund remediation--inconsistent with CERCLA section 120(i).³⁹⁵ The Tenth Circuit read the latter to require that the RCRA was "independently enforceable" at NPL and non-NPL sites and that Congress had preserved RCRA-enforced obligations within the CERCLA.³⁹⁶ As such, the EPA's subsequent listing of the basin on the NPL had no bearing on which statute applied to the cleanup.

c. *The ARARs (Clean-up Standards) Process*--The government also argued before the Tenth Circuit that CERCLA section 121(d)(2)(a)³⁹⁷ allowed the states to take part in both remedy selection and the cleanup only through the ARARs process.³⁹⁸ The Tenth Circuit disagreed, stating that it had

³⁹⁵ Seymour, *supra* note 341, at 248. Section 120(i) states that "nothing in [the CERCLA] shall affect or impair the obligation of any department, agency, or instrumentality of the United States to comply with any requirement of the Solid Waste Disposal Act [the RCRA]." 42 U.S.C. § 9620(i).

³⁹⁶ Seymour, *supra* note 341, at 248.

³⁹⁷ 42 U.S.C. § 9621(d)(2)(a).

³⁹⁸ See *supra* note 206-12 and accompanying text (discussing this section of the CERCLA and the ARARs process in general).

found nothing in the CERCLA to indicate that Congress intended that the ARARs process be the exclusive means of state involvement.³⁹⁹ The ARARs process, it held, was designed to provide for state input at those sites at which the state was not controlling the clean-up process.⁴⁰⁰

4. *The Effect of the Tenth Circuit's Decision*--The ramifications of the circuit court's decision have been, and will continue to be, significant. The recent reductions in federal facilities' environmental budgets, and the forecast of greater cutbacks in the near future,⁴⁰¹ only serve to magnify the effect of the decision. Increases in the costs and length of cleanups while funding for them is decreasing can only signify additional difficulties ahead. Overall, the decision has created the following impediments to cleaning up federal facility hazardous waste sites:

- (1) States and federal facilities are unable to clarify who controls the clean-up at federal

³⁹⁹ Seymour, *supra* note 341, at 249.

⁴⁰⁰ The Tenth Circuit also pointed to CERCLA sections 114 and 302, indicating that they demonstrated that the CERCLA was designed for use with other hazardous waste laws. As such, state involvement could not be limited only to the ARARs process. Eaton, *supra* note 378, at 137-38.

⁴⁰¹ See *supra* notes 275-80 and accompanying text (discussing recent cuts in environmental spending within federal agencies).

facility sites;⁴⁰² and

(2) Federal facilities have lost the ability to select cost-effective, timely, and sensible remedies to clean up their facilities;⁴⁰³ and

(3) States are imposing inconsistent clean-up standards on federal facilities, because each state has its own separate standard;⁴⁰⁴ thus,

(4) States are defeating the CERCLA's stated purpose--to promptly clean hazardous waste sites.⁴⁰⁵

The Tenth Circuit hoped to clarify the RCRA's application to federal facility NPL site cleanups. Unfortunately, it only made it more difficult to ascertain which statute controls and who manages the cleanups. Its decision has resulted in more, not less, disputes between states and federal facilities. Only now, the debate is not over whether the RCRA applies, but

⁴⁰² Eaton, *supra* note 378, at 139, 145-46.

⁴⁰³ See Seymour, *supra* note 341, at 252-54.

⁴⁰⁴ See Eaton, *supra* note 378, at 142-44.

⁴⁰⁵ See *id.* at 140 (citing *Dickerson v. Administrator, EPA*, 834 F.2d 974, 978 (11th Cir. 1987)). See also *supra* notes 127-30 and accompanying text (identifying Congress's purpose in enacting CERCLA).

which statute, and which entity, controls the cleanups.⁴⁰⁶

In sum, the Tenth Circuit's decision granted the states a total partnership in CERCLA cleanups at federal facility NPL sites.⁴⁰⁷ In so doing, it ensured that the RCRA/CERCLA interface would occur more frequently. This new state RCRA authority at these sites has thus resulted in overlapping statutory authorities--the RCRA/CERCLA interface--which has negatively impacted the clean-up process.

D. An Analysis of the Interface and the Problems It Causes

By now it should be evident that two EPA-administered statutes govern cleanups at federal facilities--the CERCLA and the RCRA.⁴⁰⁸ Also evident is that the EPA typically enforces the requirements of the CERCLA and delegates authority to the states to enforce the requirements of the RCRA.⁴⁰⁹ Inevitably, problems arise because almost all federal facilities generate,

⁴⁰⁶ The Tenth Circuit's attempt to clarify the RCRA's and CERCLA's respective roles in the clean-up process at federal facility NPL sites failed. The Tenth Circuit's holding simply "interjects more uncertainty into an already confusing statutory scheme." Eaton, *supra* note 378, at 138.

⁴⁰⁷ Seymour, *supra* note 341, at 254.

⁴⁰⁸ Draft Memorandum from Sherri W. Goodman, Deputy Under Secretary of Defense (Environmental Security), to the RCRA Information Center, Environmental Protection Agency (June 12, 1995) (on file with author) (concerning the EPA's RCRA Streamlining Initiative).

⁴⁰⁹ *Id.*

store, or dispose of hazardous waste to some extent. As such, they are frequently subject to the RCRA's requirements. Many of these facilities also contain hazardous waste disposal sites regulated under the CERCLA.⁴¹⁰ When both the CERCLA and the RCRA apply to a federal facility hazardous waste site, a struggle for advantage begins "between regulatory agencies with different agendas."⁴¹¹ As such, a duplication of efforts occurs, disputes arise over what clean-up standards apply, and costs, the length of the cleanup, and frustration increase dramatically.⁴¹²

1. *Unnecessary Duplication of Efforts*--The CERCLA clean-up process and the RCRA's "corrective action" requirements are essentially the same. As such, federal facilities acquire no additional environmental benefits from an expensive duplication of efforts under both statutes.

The usual scenario at a federal facility cleanup mirrors the course of events at the Rocky Mountain Arsenal. The federal facility, in conjunction with the EPA, begins a clean-up action on a hazardous waste site conducted under the

⁴¹⁰ Even if the RCRA does not currently regulate a federal facility, CERCLA clean-up actions frequently trigger the RCRA through the treatment, storage, or disposal of wastes at the site.

⁴¹¹ Kassen, *supra* note 24, at 1506.

⁴¹² *Id.*

CERCLA. It performs a preliminary assessment, after which the EPA places the site on the NPL.⁴¹³ The federal facility then begins additional studies and remedial investigations in the RI/FS phase, and may even begin actual clean-up work. Then, an event may occur which triggers application of the RCRA permitting process.⁴¹⁴ Once the state issues the RCRA permit through its EPA-authorized hazardous waste program, the corrective action requirements previously discussed apply.⁴¹⁵

Accordingly, the state requires the facility to perform all of the assessments, inspections, and studies required by the corrective action provisions of the RCRA permit and the EPA's implementing regulations.⁴¹⁶ The facility must conduct this costly, repetitive remedial work to comply with the state's RCRA requirements, or subject itself to fines and penalties. Yet this additional work is unlikely to be of significant environmental value, as it only parallels what the

⁴¹³ Listing on the NPL did not occur at the Rocky Mountain Arsenal until after the district court's first decision.

⁴¹⁴ A triggering event includes any action concerning the treatment, storage, and/or disposal of hazardous waste. See *supra* notes 82-87 and accompanying text. In many situations, the RCRA permit already is in place when the EPA places the site on the NPL. Once a site is on the NPL, the EPA and federal facilities adopt the position that the CERCLA controls.

⁴¹⁵ See *supra* notes 344-48 and accompanying text.

⁴¹⁶ See *supra* notes 349-56 and accompanying text (discussing the RCRA's corrective action provisions).

federal facility has previously done under the CERCLA. A timely clean-up is not performed because the parties spend all of their time, effort, and money on the investigative process instead of the clean-up process. This duplication of efforts is not cost-effective, and the delays it causes conflict with the CERCLA's central purpose--the prompt clean up of hazardous waste sites.⁴¹⁷

2. *Disputes Over Applicable Clean-Up Standards and Remedy Selection*--The overlapping authorities also create a conflict over which clean-up standards apply--the essential question of "How clean is clean?" Although the ultimate goal is to make every site 100% clean, such goals are not reasonable. Federal facilities, in conjunction with the EPA, have the responsibility to consider all contaminated federal facility sites and, with limited resources, conduct response actions and remediate as many as possible. This process involves risk assessment and cost effectiveness, two factors that the RCRA and the CERCLA do not always agree on.

Alternatively, states want all of their sites 100% clean as quickly as possible, regardless of how much federal facilities have to spend. State regulations under the RCRA tend to be extremely stringent. Some have described the level

⁴¹⁷ "This requirement for state involvement has the potential to make the whole process more cumbersome and slow." Bayko & Share, *supra* note 120, at 30.

of clean up required as "drinkable leachate" and "edible soil."⁴¹⁸ "You made the mess on our land, now you clean it all up," tends to be their philosophy. Countering this argument can be difficult at times. After all, federal facilities are responsible for contaminating the sites. However, the states' view does not consider the realities of a limited environmental budget and a nation-wide list of sites awaiting clean up. Corrective action procedures under the RCRA do not require consideration of the cost effectiveness of a clean-up remedy. Thus, states "only" require that federal facilities return to them sites that need no further care after the facilities complete their remedial action--regardless of what it costs to comply with the states' requirements.

With limited funding and a mandate under the CERCLA to consider cost effectiveness when selecting a remedy,⁴¹⁹ federal facilities are compelled to obtain 100% solutions at all sites. Unfortunately, they do not have the technology to clean up all of the wastes. Accordingly, federal facilities are attempting to address this problem by applying systems

⁴¹⁸ Seymour, *supra* note 341, at 253. The article indicates that "RCRA regulations on clean closure (removal and decontamination) require all waste residues and contaminated containment system components (e.g., liners), contaminated subsoils, and structures and equipment contaminated with waste and leachate to be removed and managed as hazardous waste before the site management is completed." *Id.*

⁴¹⁹ The EPA must consider the cost effectiveness of all potential remedies. 42 U.S.C. §§ 9620(a)(2), 9604(a)(1), 9605(a)(7).

that prioritize sites for cleanups after evaluating relative risk.⁴²⁰ The Defense Priority Model (DPM) is aimed at dealing with sites within each state on a "worst-first" basis.⁴²¹

Unfortunately, states enforcing their RCRA requirements are not bound by the priority assigned to their sites by the federal facility system. As such, they can still seek immediate clean up of their sites even if the system prioritizes them below those of other states. States seeking compliance through fines and penalties pose a serious threat to the federal facility system and force it away from its "worst-first" strategy. In response, the DOD actively seeks to complete memoranda of agreement between the states and the

⁴²⁰ Seymour, *supra* note 341, at 251 (citing Longo et al., *DOE's Formal Priority System for Funding Environmental Cleanup*, 1 FED. FACILITIES ENVTL. J. 219 (Summer 1990); Thomas E. Baca, *DOD Environmental Requirements and Priorities*, 3 FED. FACILITIES ENVTL. J. 333 (Autumn 1992)).

⁴²¹ See 54 Fed. Reg. 43,104 (1989). Developed by the Air Force, the DPM became operational in FY 1990. It is a waste site hazard-ranking system for toxic sites that "evaluates relative risk based on information gathered during the Preliminary Assessment/Site Inspection and the Remedial Investigation/ Feasibility Study." *Id.* By assessing the risk at each of its sites, the DOD can ensure that it addresses sites "on a worst-first basis nationwide with the funding available from the Defense Environmental Restoration Account." *Id.*

The DOD's DPM is more accurate in reflecting current site conditions than is the EPA's system. This accuracy stems from the DPM incorporating information from the investigations and studies into its assessment. John J. Kosowatz, *Cleaning up After the Military*, 222 ENGINEERING NEWS-REC. 82, 82 (May 25, 1989). "Watchdog groups such as the congressional Office of Technology Assessment (OTA) give the DOD system high marks." *Id.*

DOD (DSMOAs).⁴²² These agreements guarantee the state a certain amount of funding for cleanups in return for agreeing to abide by the priorities set by the DPM. However, this system and the state-federal agreements are outstanding in theory, do not work in reality.

Finally, the RCRA, unlike the CERCLA, does not provide a dispute resolution mechanism for disagreements between federal facilities and states. However, the CERCLA instituted a mechanism whereby disputes between federal facilities and the EPA can proceed to the Office of Management and Budget (OMB) for resolution.⁴²³ The RCRA has no similar mechanism. As such, disputes between federal facilities and states languish while the clean-up process stalls and the public's frustration grows.

⁴²² Kosowatz, *supra* note 421, at 82; Diner Interview, *supra* note 79.

⁴²³ The EPA initially established the Federal Facilities Dispute Resolution Process to provide federal facilities with an opportunity to contest any EPA decisions concerning their facilities. If the two parties could not resolve the conflict in this process, the issue would proceed to the OMB.

See Exec. Order No. 12,088, 3 C.F.R. § 243 (1979), reprinted in 42 U.S.C. § 4321 (1988) (funding and scheduling issues); Exec. Order No. 12,146, 3 C.F.R. 409 (1980), reprinted in 28 U.S.C. § 4339 (1988) (legal issues). See *infra* notes 464-70 and accompanying text (discussing IAGs and the OMB's role as arbiter). See also Millan, *supra* note 35, at 375 ("When necessary, prior to a selection of a remedial action by the Administrator under Section 120(e)(4)(A) of the Act, Executive agencies shall have the opportunity to present their views to the Administrator after using the procedures . . . of Executive Order No. 12,088 . . . [OMB] shall facilitate resolution of the issue."

3. *Federal Facilities Lack of Freedom in the Clean-Up Process*--The CERCLA's intent was to provide states the opportunity to participate in remedy selection and the determination of clean-up standards through the ARARs process.⁴²⁴ The ARARs process required that the entity managing the cleanup--usually federal facilities--incorporate federal, state, and local requirements into the clean-up standards. Through the process, the CERCLA afforded states "substantial and meaningful involvement in the initiation, development, and selection of remedial actions."⁴²⁵ However, the entity managing the cleanup still had the authority to waive certain standards if it determined that they were "technically impracticable" or "unduly expensive."⁴²⁶

The RCRA/CERCLA interface severely restricts federal facilities' freedom to waive compliance with the states' hazardous waste laws (i.e., their ARARs), even when they are unduly burdensome on, or unreasonably expensive for, the facilities.⁴²⁷ The overlap of statutory authority causes this situation by allowing the states to require that facilities

⁴²⁴ 42 U.S.C. § 9621. See *supra* notes 206-12 and accompanying text (describing the ARARs process).

⁴²⁵ 42 U.S.C. § 9621(f)(1).

⁴²⁶ *Id.* § 9621(d)(4); see *supra* note 211 and accompanying text (discussing the "waiver clause"); see also Seymour, *supra* note 341, at 252.

⁴²⁷ See Seymour, *supra* note 341, at 252.

comply with their often onerous requirements. As such, states can, and do, demand compliance with stringent standards that "threaten to exhaust the agencies appropriations and disadvantage other states."⁴²⁸

Federal facilities no longer can depart from these strict state standards--even when they are "practically unachievable or impractically expensive"⁴²⁹--for fear of fines and penalties for noncompliance. Thus, facilities' have lost the flexibility to select cost-effective, technologically sound clean-up remedies.

4. *Summary*--As a direct result of the interface between these two statutes, states and the EPA have sought to control federal facility cleanups, causing overlapping regulatory authorities. This overlap has resulted in disputes over the parties' respective roles in the cleanups, conflicts regarding the appropriate clean-up standards and remedies, and wasted time, money, and effort by all involved in the clean-up process.

⁴²⁸ *Id.* at 253. States also might insist on more stringent clean-up standards at federal facilities than they do at private facilities. Although states are not required to contribute to federal facility cleanups, they might be required to contribute at private sites if orphan shares exist (the amount attributed to unknown or unavailable PRPs). The higher they drive the costs of the cleanup at private sites, the more money they will have to pay. *Id.*

⁴²⁹ *Id.* at 253-54.

These conflicts and disputes must be resolved if the nation hopes to one day see federal facilities free of the toxic messes that presently plague them. This is especially true in 1996, as the government continues to close and transfer many facilities for both public and private use. However, nothing will be resolved until Congress addresses the regulatory gridlock caused by the interface of the two statutes.

V. Solutions

A. *Potential Solutions*

Four potential remedies to the RCRA/CERCLA interface problem exist:

(1) First, Congress could amend the RCRA and CERCLA to indicate that states, under EPA-delegated CERCLA authority, control the clean-up process at federal facility NPL sites.⁴³⁰

(2) Second, Congress could amend the statutes to mandate that the EPA, under its CERCLA authority,

⁴³⁰ See Henley, *supra* note 74, at 46-57 (arguing for state control of these sites under the CERCLA); see also *infra* notes 434-49 and accompanying text.

controls the clean-up process at these sites.⁴³¹

(3) Third, Congress could maintain the status quo-- dual control of the sites under the CERCLA and RCRA. It could require triparty interagency agreements between the states, the EPA, and federal facilities. As such, the parties could attempt to resolve their differences and reach agreements on the clean-up process through negotiation.⁴³²

4) Finally, Congress could amend the CERCLA to create a National Environmental Committee (NEC), granting it complete authority over all federal facility NPL sites.⁴³³

The last option would establish a committee with the authority to create national regulations governing the clean-up process at federal facility NPL sites, removing any doubt as to what entity, and what standards, control the cleanup. In establishing the NEC, Congress must amend the CERCLA and RCRA to indicate that neither the states nor the EPA control federal facility NPL site cleanups. Congress also must amend the RCRA to render its "corrective action" provisions

⁴³¹ See *infra* notes 450-63 and accompanying text.

⁴³² See *infra* notes 464-77 and accompanying text.

⁴³³ See *infra* notes 478-81 and accompanying text.

inapplicable to federal facility NPL sites. In so doing, Congress would remove the potential for any federal-state, RCRA/CERCLA interface--that is, disputes and conflicts--at these sites.

I strongly recommend that Congress select the final alternative and amend the CERCLA and RCRA to establish the NEC. Before discussing this committee option in detail, however, I will analyze the four potential remedies.

B. Grant the States Control of the Clean-Up Process

1. *The Benefits*--The practical aspect of this alternative (as well as with the second and fourth alternatives) is that control rests with only one entity. Thus, the potential for parties or statutes to be in conflict greatly decreases. At times, both the EPA and federal facilities have indicated that, even if Congress amended the CERCLA and RCRA to grant control to the states, such a clear statement of congressional intent would be better than the present state of uncertainty and conflict.⁴³⁴

State control also would avoid the difficulties associated

⁴³⁴ See Strand, *supra* note 305, at 23.

with dual regulation and "changing horses in midstream."⁴³⁵ Moreover, in this era of increasing states' rights and the "end of big government,"⁴³⁶ Congress would do well to leave to state management a problem that does not "routinely transcend the boundaries of a single state."⁴³⁷

2. *The Drawbacks*--Congress and the EPA historically have resisted delegating complete authority to the states to perform management functions under the CERCLA.⁴³⁸ This resistance was primarily due to concern over the states'

⁴³⁵ See Henley, *supra* note 74, at 57. The duplication of efforts should cease. Changing lead agency authority in the middle of the clean-up process inevitably leads to a repetition of the same work, and wastes valuable time and funding that could be spent cleaning up these sites.

⁴³⁶ In his State of the Union Address in January 1996, President Clinton announced that the "era of big government is over." E. Thomas McClanahan, *Find Out If He Means It*, KANSAS CITY STAR, Feb. 1, 1996, at C10.

⁴³⁷ James P. Young, *Expanding State Initiation and Enforcement Under Superfund*, 57 U. CHI. L. REV. 985, 996 (1990). See Percival, *supra* note 59, at 1141 (discussing states' rights, and indicating that "states argue that they should be given more freedom and flexibility to develop environmental standards tailored to local circumstances"). Note, however, that the article subsequently indicates that "[c]urrent efforts to reduce the size of government and to return greater power to the states have not been driven by any principled articulation of a methodology to determine which level of government is best suited to perform which functions." *Id.* at 1179. See also *infra* notes 540-46 and accompanying text (providing a more detailed discussion of the states' rights argument).

⁴³⁸ 55 Fed. Reg. 8783 (1990).

ability to commit Superfund⁴³⁹ money without some level of federal oversight.⁴⁴⁰ Even with federal oversight,⁴⁴¹ state control of cleanups translates into significant difficulties for federal facilities.

State control would result in inconsistent clean-up standards and inconsistent quality in the clean-up process.⁴⁴² It also will likely lead to uneven treatment of federal facilities as compared to private entities. Unless Congress tasked the EPA to establish national clean-up standards,⁴⁴³ each state would possess its own unique standards, which it would be free to impose on federal facilities. States would continue to burden federal facilities with onerous requirements--that is, "drinkable leachate and edible soil."⁴⁴⁴

⁴³⁹ Defense Environmental Restoration Account (DERA) money would be used for DOD cleanups and Environmental Management Fund (EMF) money would be used for DOE cleanups.

⁴⁴⁰ See Henley, *supra* note 74, at 52 & n.317.

⁴⁴¹ This oversight would take the form of the EPA, pursuant to the RCRA or the CERCLA.

⁴⁴² By allowing every state to apply its own unique standards to federal sites within its borders, Congress is ensuring that states will apply inconsistent standards that will result in inconsistent quality in the cleanups.

⁴⁴³ These national clean-up standards would have to specifically preempt federal, state, and local ARARs. If not, any state that did not conclude that a national standard was stringent enough could simply use its delegated authority to force the federal facility to comply with the more stringent standard.

⁴⁴⁴ See Seymour, *supra* note 341, at 253.

Assuming that Congress mandates compliance with national standards along with granting control of the process to states, other concerns still exist. First, states have no incentive to view the clean-up process on a national level. States are afflicted with "stubborn local particularism,"⁴⁴⁵ or the inherent bias to protect their own backyard at all costs.⁴⁴⁶ States are not concerned about the numerous contaminated federal facility sites that remain nationwide after its own sites have been restored to almost pristine conditions. Furthermore, state governments are subject to regional economic and political pressures that hamper their ability to effectively manage environmental programs.⁴⁴⁷

⁴⁴⁵ See Percival, *supra* note 59, at 1171 (citing Carol M. Rose, *The Ancient Constitution vs. The Federalism Empire: Anti-Federalism from the Attack on "Monarchism" to Modern Localism*, 84 NW. U. L. REV. 74, 99 (1989)).

⁴⁴⁶ A genuine concern exists over whether states will be reasonable in establishing requirements or in prioritizing cleanups. If they are not, they have the ability to require the immediate clean up of hazardous waste sites within their own states, thereby delaying the clean up of additional--and potentially more dangerous--hazardous waste sites within other states. Diner Interview, *supra* note 79.

⁴⁴⁷ See Percival, *supra* note 59, at 1178 (indicating that "history demonstrates that state and local officials generally are too vulnerable to local economic and political pressures . . . to be given exclusive responsibility for environmental protection); see also *Federalism and Hazardous Waste*, *supra* note 4, at 1525 (stating that "it is unrealistic to expect municipalities [or states, for that matter] to enforce federal mandates aggressively against companies that make up a good part of the municipalities' tax and employment bases").

Finally, the budget "crunch" has affected not only federal facility budgets, but those of the states as well. Placing more of the administrative cost burden on the states' environmental programs to manage these cleanups taxes "financially-strapped" state governments and places the quality of these environmental programs at federal facility sites into question.⁴⁴⁸

3. *Summary*--Under a scheme of state control, states would fail to consider risk assessment, prioritization, future land use,⁴⁴⁹ the cost effectiveness of the selected remedy, and a host of other concerns. This approach would result in a few states' sites being clean enough to avoid any after care, an exhausted federal facilities' environmental budget, and scores of dangerous sites still to confront. In the final analysis, state control is not a reasonable alternative.

C. *Grant the EPA Control of the Clean-Up Process*

1. *The Benefits*--Giving control of the process to the EPA provides benefits similar to those in the first alternative.

⁴⁴⁸ See Percival, *supra* note 59, at 1175 (citing UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, A PRELIMINARY ANALYSIS OF THE PUBLIC COSTS OF ENVIRONMENTAL PROTECTION: 1981-2000 (1990)).

⁴⁴⁹ Requiring that all sites be 100% clean does not take the future plans for the contaminated land into account. It does not make sense to compel federal facilities to remediate a site to an "edible soil" standard when it will be subsequently used as a landfill.

Control placed in one identifiable decision maker removes the condition of uncertainty and precludes the inevitable struggle for regulatory control. It also avoids the possibility of changing the managing authority after substantial progress has already been made under a different authority.

Additionally, the EPA would be able to consider priorities on a national level and, with the adoption of national clean-up standards, would likely treat federal facilities in the same manner as other federal facilities and private facilities. Moreover, the CERCLA requires that the EPA consider the cost-effectiveness of a remedy.⁴⁵⁰ The EPA thus may be more reasonable than the states in selecting a remedy. For these reasons, federal facilities would prefer working with the EPA. Considering and adopting sensible, cost-effective remedies provides welcome relief to shrinking federal facility environmental restoration budgets.

Finally, the CERCLA provides a dispute resolution mechanism to address contentious fiscal or legal issues arising between federal facilities and the EPA. The states, under their RCRA authority, have no similar method of resolving their disputes with federal facilities.⁴⁵¹

⁴⁵⁰ Listing on the NPL means that the CERCLA's concepts control the clean-up process. The CERCLA requires selection of a cost-effective remedy. 42 U.S.C. § 9605(a)(7).

⁴⁵¹ See *supra* note 423 and accompanying text.

2. *The Drawbacks*--The EPA's record in managing the Superfund program since Congress's enactment of the CERCLA is "less than stellar."⁴⁵² In the years between CERCLA's enactment and congressional consideration of the SARA, "EPA implementation of the federal hazardous waste statutes . . . had a tortured history."⁴⁵³ The general perception of the agency is that it has difficulty with its current role.⁴⁵⁴

States certainly are not in favor of EPA control. Although Congress has refused to allow federal agencies to hide behind the unitary executive theory,⁴⁵⁵ the EPA has

⁴⁵² Given the EPA's history of inefficiency, mismanagement, and questionable conduct, there must be a check placed on this agency's power. Perhaps one day the EPA will have the structure, expertise, and manpower to deal effectively and efficiently with the problems of hazardous waste. Until then, we must act to preserve two valuable resources: American industry and the environment.

Limiting Judicial Review, supra note 156, at 1178.

⁴⁵³ *Developments, supra* note 50, at 1474, revealing that the EPA missed statutory deadlines for promulgating policy and guidelines and cleanups proceeded slowly. Congress attributed these difficulties to, among other things, "the intrusion of partisan politics into Agency operations, the inadequacy of Agency resources, and the magnitude of the Agency's task." *Id.* See also *supra* note 207 and accompanying text (discussing Congress's lack of confidence in the EPA).

⁴⁵⁴ See *EPA in Sad Shape: New Boss Testifies*, WASH. POST, Mar. 11, 1993, at A18; see also *supra* note 207.

⁴⁵⁵ In sum, the theory holds that one federal agency is prohibited from enforcing laws against another federal agency. See *supra* notes 324-27 and accompanying text.

sparingly employed its authority to "enforce federal environmental laws against its sister agencies."⁴⁵⁶ Many states "have expressed skepticism that the EPA can regulate federal agencies as vigorously as it regulates private or local government polluters."⁴⁵⁷

Many factors have combined to limit the EPA's ability to function as effectively as Congress originally intended. Limited resources, ambiguous environmental statutes, and a burgeoning workload have precluded the agency from making steady progress.⁴⁵⁸ Consequently, to place more "bricks in the rucksack" of an already overburdened and understaffed federal agency would not make good sense. Conversely, to remove some of that burden from the EPA, by placing control of federal facility NPL sites under a separate entity, seems logical.

Moreover, the EPA is subject to political pressures as well. As a result, the agency has not maintained a cost-

⁴⁵⁶ Kassen, *supra* note 24, at 1484.

⁴⁵⁷ *Id.* at 1484-85 (citing H.R. REP. NO. 111, 102d Cong., 1st Sess. 6-12, reprinted in 1992 U.S.C.C.A.N. 1257, 1292-98 (1990)) "[S]tatements by state attorneys general and state program officials advocating the adoption of the Federal Facilities Compliance Act and arguing that the Act, which would give states enforcement power, is necessary because federal facilities have been and are 'the very worst violators of environmental laws.'" *Id.*

⁴⁵⁸ See Woolford, *supra* note 262, at 391 (a "lack of resources places the EPA in a difficult position of trying to fulfill its statutory mandates without an appropriate level of resources").

effective disposition. Although the CERCLA requires consideration of cost when selecting a remedy, the EPA frequently has responded to pressure to demonstrate results by throwing more money into cleanups⁴⁵⁹ and adopting a "Cadillac" approach to remedy selection.⁴⁶⁰ Additionally, the EPA Administrator is a political appointee. As such, the agency's ability to use its discretion and manage cleanups is limited by the need to follow the President's policies and guidance.

Finally, budget reductions have affected the EPA as much, if not more, than the states.⁴⁶¹ Congress has reduced the agency's funding drastically in recent years.⁴⁶² This

⁴⁵⁹ One commentator noted that under the Superfund program, the "EPA reacted to unrealistic congressional goals by spending huge amounts of money while attempting to meet cleanup standards that varied inexplicably from site to site." Adam Babich, *What Next?*, ENVTL. F., Nov.-Dec. 1994, at 48-50.

⁴⁶⁰ See *Limiting Judicial Review*, *supra* note 156, at 1170 (predicting, in 1989, that the pressure on EPA to show results coupled with the SARA's "tightening" of clean-up standards would cause the agency to spend more money and adopt a "Cadillac" approach to clean-up decisions). The article also noted that its numerous criticisms of the EPA revealed that the agency was "an unorganized bureaucracy lacking the manpower and structure to make intelligent and cost-effective decisions concerning appropriate remedial action for each Superfund site." *Id.* at 1171.

⁴⁶¹ See Woolford, *supra* note 462, at 391 ("[The] EPA's federal facility Superfund budget of \$30 million was only about .3% of the combined DOD and DOE environmental budgets. In order to be an effective regulator and to assist in providing national environmental leadership, the EPA maintains that this ratio should be approximately 1%.").

⁴⁶² See Damon Chappie, *GOP Seeks to Cut EPA Funds by One Third, Eliminate CEQ, Slash Compliance Monies*, Nat'l Env't Daily (BNA) (July 12, 1995) (indicating that Congress wanted

alternative would place more financial requirements on an already overtaxed federal agency. The EPA has "little incentive to assume programs that would add to the agency's own responsibilities at a time when it is having difficulty finding funds for its existing programs."⁴⁶³

3. *Summary*--In light of the excess burdens that exclusive control of federal facility NPL site cleanups would place on an agency already perceived as incapable of regulating them, granting control to the EPA is not a reasonable alternative.

D. Maintain the Status Quo

The third alternative suggests keeping the status quo-- dual regulation of sites under both the RCRA and CERCLA by the states and the EPA. Implicit in this suggestion is that Congress will mandate the use of binding triparty IAGs as a method of resolving disputes between the parties through negotiation and cooperation.

Should readers not accept my central thesis--that Congress must create a national committee to resolve the myriad problems associated with federal facility NPL site cleanups--

to reduce the EPA's overall budget for FY 1996 to \$4.87 billion, down \$2.4 billion from FY 1995 and \$2.5 billion less than the Clinton Administration requested).

⁴⁶³ Percival, *supra* note 59, at 1175.

then, at the very least, they must accept this third alternative. Although not perfect, through the required use of binding IAGs it provides many more benefits than do the first two alternatives.

1. *The Benefits*--Presently, the CERCLA requires that federal facilities enter into IAGs with the EPA within 180 days after completing the RI/FS.⁴⁶⁴ These agreements control the combined efforts of the parties during the clean-up process.⁴⁶⁵ They allow the parties to effectively organize and plan the clean-up process by both setting priorities and "establishing long-term schedules and milestones . . . [that] provide benchmarks against which to measure cleanup progress."⁴⁶⁶ Yet the CERCLA requires only the federal facility and the EPA to sign the IAGs.

Practicality dictates, however, that in light of *United*

⁴⁶⁴ 42 U.S.C. § 9620(e)(2). Federal facilities often seek to negotiate these agreements as soon as the EPA proposes a site for listing on the NPL. See *supra* notes 368-69 and accompanying text (discussing IAGs).

⁴⁶⁵ "Cleanup and compliance agreements provide the framework for determining how and where resources are to be applied over the long term." Woolford, *supra* note 262, at 388.

⁴⁶⁶ *Id.* at 389. The article also indicates that IAGs are a "very important way of improving the credibility of the federal government with respect to meeting its environmental management responsibilities." *Id.* Facilities gain credibility through the tremendous commitments that they make in the IAGs.

States v. Colorado, the EPA and federal facilities want to include the states as signatories.⁴⁶⁷ Properly drafted IAGs should define the respective "roles, authorities, and responsibilities of the parties, thereby promoting greater coordination in implementing the requirements of these agreements."⁴⁶⁸ Conducting negotiations through IAGs on disputed issues makes it less likely that states will attempt to control the clean-up process through their corrective action authority under the RCRA.⁴⁶⁹

Thus, the status quo presents the potential for enhanced cooperation between the regulatory parties and a substantial role for each of them in federal facility NPL site cleanups. This is especially true for the states,⁴⁷⁰ although this

⁴⁶⁷ 990 F.2d 1565 (10th Cir. 1993), *cert. denied*, 127 L. Ed. 2d 216 (1994). If courts will allow states to enforce their hazardous waste laws at federal facility cleanups, the EPA and federal facilities need to include them in every phase of the cleanup.

⁴⁶⁸ Woolford, *supra* note 262, at 389.

⁴⁶⁹ See 42 U.S.C. § 6924(u). States also may refrain from challenging the selected remedy at a subsequent time if they are included in the IAG process. *Id.* § 9613. Diner Interview, *supra* note 79 (discussing the IAG process).

⁴⁷⁰ Enhanced cooperation should make it less likely that disputes will erupt because no single entity is managing the cleanup. See Kassen, *supra* note 24, at 1506. Ms. Kassen's article provides examples of the "advantages and the problems that can occur as a result of states' overlapping authority under RCRA's corrective action provisions," citing to the DOE's Rocky Flats site and the DOD's (Army's) Rocky Mountain Arsenal. *Id.* at 1506. The collaboration between the DOE, EPA, and Colorado worked well at Rocky Flats. However, the lack of collaboration between the EPA and Colorado at Rocky

alternative still provides for federal oversight of state activities. However, the status quo still fails to address numerous concerns.

2. *The Drawbacks*--The negative aspects of the status quo consist of all of the problems previously detailed in this article. Unless the EPA, states, and federal facilities use the IAG process at every federal facility NPL site at which both the RCRA and CERCLA apply, the clean-up process is still subject to the RCRA/CERCLA interface and all of its attendant problems. Thus, the same disputes and conflicts occur, which translates into greater costs and delays in the clean-up process.

Moreover, even when the parties use the *current* IAG process, it provides no guarantee of success. States are not bound by IAGs, which means that they are always free to reject the terms of the agreement and demand immediate compliance with their hazardous waste laws. Again, no dispute resolution authority exists to mediate disagreements between the states and other parties.

Of course, this places the EPA and, more frequently, federal facilities in a inferior negotiating posture--

Mountain led to "a decade [spent] fighting each other for regulatory advantage." *Id.* at 1507.

especially after *United States v. Colorado*. Now that states have an independent right to enforce their RCRA authority at federal facility sites, they are less likely to enter into IAGs. Consequently, federal facilities end up "giving away the farm"⁴⁷¹ to reach agreements with regulators and maintain their credibility with both Congress and the public.⁴⁷² To be effective, IAGs must have statutory authority to bind all parties to the agreement. Additionally, the IAGs must have "teeth" to ensure that the parties abide by their provisions. Thus, the agreements must identify, and allow for the imposition of, sanctions for failure to comply with the terms of the IAG.

The IAGs must also identify a dispute resolution mechanism to resolve conflicts that inevitably will arise between the parties. I propose that Congress create--much as it did for endangered species--a "God Squad" committee⁴⁷³ to act as the

⁴⁷¹ The Twin Cities Army Ammunition Plant (TCAAP), located north of Minneapolis-St. Paul, Minnesota, provides an excellent example of this occurrence.

⁴⁷² Federal facilities want to maintain their credibility by appearing cooperative and willing to work toward cleaning up their environmental messes. See *supra* note 466 and accompanying text.

⁴⁷³ In 1978, Congress created the Endangered Species Committee (ESC) and tasked it with reviewing disputes over requests for exemption from the Endangered Species Act's provisions. It was "[k]nown variously as the 'God Committee' or the 'God Squad' for its supposedly divine power over endangered species." Diner, *supra* note 239, at 192 (citing 16 U.S.C. § 1536(e)).

dispute resolution authority between the parties.⁴⁷⁴ The IAGs must provide any party to the agreement the right to request review by this committee, once an administrative law judge (ALJ) has certified the disputed issue as proper for such review.⁴⁷⁵ The decisions of this committee would be final--

⁴⁷⁴ Do not confuse this dispute resolution committee with the National Environmental Committee (NEC) proposed and discussed later in this article. This dispute resolution committee would be patterned after the ESC, which is "chaired by the Secretary of the Interior and comprised of six cabinet level officials and one member, appointed by the President, from each state affected by the decision." *Id.* The Secretaries of the Departments of Agriculture and Army, the Administrators of the EPA and National Oceanic and Atmospheric Administration, and the Chairman of the Council of Economic Advisors fill the cabinet-level positions. *Id.* at n.205 (citing 42 U.S.C. § 1536(n)).

I would replace the Army Secretary with the Secretary of Defense, and add an additional member--the Chairman of the CEQ. Accordingly, the states affected by the decisions, the EPA, and federal facilities would all have representation on the committee.

⁴⁷⁵ See 50 C.F.R. § 452.03. The Secretary of the Interior currently has the authority to appoint an ALJ to conduct a hearing to elicit information, for an administrative record, that the ESC will review. *Id.* In my proposal, the ALJ would fulfill two functions:

- (1) Elicit information for subsequent review by the committee (compile an administrative record) and, in so doing;
- (2) Evaluate the issue proposed by the parties to determine if it is a proper issue for the committee to consider (gate-keeping).

Congress must task the EPA to develop criteria that the ALJs will use in determining the propriety of an issue for review. The agency will then set these out in the *Code of Federal Regulations*.

subject to judicial review--and binding on all parties.⁴⁷⁶

Binding IAGs, with sanctions for failure to comply, coupled with this proposal to address disputed issues, will alleviate many of the problems with the current IAG process and make it much more effective. Nevertheless, this alternative still poses significant problems.

⁴⁷⁶ Congress granted the ESC "broad authority to receive evidence" and make decisions, yet these "decisions are subject to judicial review." Diner, *supra* note 239, at 192 (citing 42 U.S.C. § 1536(n)). See Jared des Rosiers, *The Exemption Process Under the Endangered Species Act: How the "God Squad" Works and Why*, 66 NOTRE DAME L. REV. 825, 845-46 (1991) (providing a detailed discussion of the ESC).

One apparent concern with this dispute resolution committee is that it would be required to review too many disputes between parties to make it feasible. I have three responses:

- (1) Congress, in legislation creating the new IAG process and the dispute resolution committee, will strongly encourage parties to resolve conflicts in drafting their IAGs. It will indicate that--much like the ESA's God Squad--it is a committee of last resort. (The ESC has considered very few requests for exemption in its history).
- (2) Congress will direct the ALJs to be gate-keepers/ mediators. Congress will encourage them to resolve conflicts at this lower level.
- (3) Once the committee begins issuing decisions on issues that consistently present conflicts between IAG parties, it will set precedents that ALJs will rely on at their lower level. These early decisions may even deter parties from requesting review once they know how the committee has ruled on a particular issue.

First, the parties would still set clean-up standards on a site-by-site basis. The ARARs process, by allowing many parties to play a role in determining clean-up standards for a particular site, dictates use of this method.⁴⁷⁷ As such, standards for, and the quality of, federal facility cleanups will never be consistent. Additionally, states and the EPA will still be subject to the same biases and economic and political pressures that hamper their effectiveness. Finally, this alternative still financially overburdens the states and the EPA, although to a lesser extent than the first two alternatives.

3. *Summary*--Should Congress act on these proposals and (1) mandate use of the IAG process; (2) make IAGs binding on all parties with enforceable provisions for failure to comply; and (3) provide a method for resolving disputes between the

⁴⁷⁷ Stakeholders--including states, local governments, potentially liable parties, and ideally, potentially affected members of the surrounding community--negotiate with the Agency about a separate cleanup plan for each contaminated site. Thus, in its current design, the Superfund program cannot provide citizens with a minimum level of protection regardless of whether the federal government or the states administer it.

Federalism and Hazardous Waste, *supra* note 4, at 1538 (citing Douglas J. Sarno, *Risk and the New Rules of Decision-Making: The Need for a Single Risk Target*, 24 *Envtl. L. Rep. (Envtl. L. Inst.)* 10,402 (July 1994) ("arguing for a single national risk target to assure adequate and consistent levels of protection in all communities")) (citations omitted).

parties, this third alternative has the potential to succeed. However, Congress must also address, at the least, issues involving the consistency of clean-up standards and quality and proper funding for the states, the EPA, and federal facilities to manage the clean-up process. Until Congress deals with these and all of the issues previously discussed, this alternative is not viable.

E. Create a National Environmental Committee

The fourth and final alternative recommends that Congress create a new entity called the National Environmental Committee (NEC). Congress must provide this committee with the authority to regulate the clean-up process at federal facility NPL sites without interference from the RCRA and CERCLA. Consequently, it also must amend the two statutes to indicate that the NEC controls cleanups at such sites. Moreover, it must amend the RCRA to indicate that its "corrective action" provisions do not apply to federal facility NPL sites.⁴⁷⁸ Should Congress grant this new committee such authority, the clean-up process at these sites would reap significant benefits.

1. *The Benefits*--With the NEC regulating cleanups, control rests with only one entity. Thus, dual regulation and

⁴⁷⁸ See *supra* notes 349-55 and accompanying text.

a duplication of efforts under two or more regulatory authorities are no longer concerns. The NEC also represents federal oversight of federal facility environmental restoration program funds. Moreover, the NEC will develop and implement national cleanup standards and presumptive remedies, avoiding inconsistency in clean-up standards or quality. The NEC also can evaluate contaminated sites on a national level, using risk assessment to prioritize cleanups on a "worst-first" basis.⁴⁷⁹

Additionally, the NEC will consider future land use, cost-effectiveness, and risk-assessment in selecting an appropriate remedy, thereby (in part) avoiding the "the last 10%" problem.⁴⁸⁰ With only one party managing the cleanup, all roles are defined and the IAG process becomes unnecessary. Thus, there are no negotiations and no need for a dispute resolution authority. Moreover, the entity in control of the cleanup will not be affected by local biases or economic or

⁴⁷⁹ See *supra* notes 420-22 and accompanying text (discussing the Defense Priority Model (DPM), which prioritizes contaminated sites on a "worst-first" basis).

⁴⁸⁰ See BREYER, *supra* note 33, at 11. Justice Breyer questions the logic in spending an inordinate amount of money to clean up "the last 10%" of contamination at a site when doing so will realize no significant environmental benefits. If the site will not contain "dirt-eating children" after completion of the cleanup, why clean it to a level such that "babies can eat dirt?" Consideration of the future use of the site will assist in determining the need to clean up the last ten percent of contaminants. See also *infra* notes 532-39 and accompanying text.

political pressures. Finally, the NEC will not be overburdened or overtaxed, as it will only deal with federal facility NPL sites. Having the committee control the clean-up process will reduce federal clean-up expenditures substantially by reducing regulatory gridlock. In so doing, it will more than pay for itself.

2. *The Potential Drawbacks*--Opponents undoubtedly will argue that the formation of the NEC poses potential concerns. Before I address these potential concerns, readers should have a basic understanding of this new committee and how it will work to resolve the problems created by the present system. Accordingly, Part VI will address these concerns once I have laid the foundation for the NEC.⁴⁸¹

VI. Recommendations

Congress must immediately amend the CERCLA to create the NEC. Congress must also direct that this committee assume responsibility for, and control over, the clean-up process at federal facility NPL sites. These amendments will provide federal facilities with immediate relief from the regulatory gridlock that they now experience due to overlapping statutory and regulatory authorities. The following subparts both

⁴⁸¹ See *infra* notes 540-46 and accompanying text.

define the NEC and indicate how it will provide such relief.

A. A National Environmental Committee

1. *The NEC Defined*--The NEC will be patterned after the Board of Governors of the Federal Reserve System (Federal Reserve Board).⁴⁸² It will consist of twelve members (including a chairman and a vice-chairman) appointed by the President, by and with the advice and consent of the Senate.⁴⁸³

⁴⁸² See Federal Reserve Act, ch. 6, 38 Stat. 251 (codified as amended at 12 U.S.C. § 226 (1913)). The Federal Reserve Act, signed into law on December 23, 1913, by President Woodrow Wilson, originally named the board the "Federal Reserve Board." The Banking Act of 1935, ch. 614, 49 Stat. 684 (1935), in section 203(a), changed the name to the "Board of Governors of the Federal Reserve System." However, the board is still commonly referred to as the "Federal Reserve Board."

Among its many stated purposes, Congress indicated that the board was designed "to establish a more effective supervision of banking in the United States." *Id.* Congress must design the NEC "to establish a more effective supervision of the restoration process at federal facility Superfund sites." See also Boyce Brainerd, *Northeast Bancorp, Inc. v. Board of Governors: Green Light For Regional Interstate Banking*, 35 AM. U. L. REV. 387, 387-88 & nn.2, 4 (1986).

⁴⁸³ See, e.g., 12 U.S.C. § 241 ("The Board of Governors of the Federal Reserve System . . . shall be composed of seven members, to be appointed by the President, by and with the advice and consent of the Senate."). Unlike the Federal Reserve Board, the NEC will consist of 12 members, representing the ten environmental jurisdictions, or EPA regions, across the nation. In selecting these members, the President "shall have due regard to a fair representation of the financial, [environmental,] agricultural, industrial, and commercial interests, and geographical divisions of the country." *Id.* The President should select highly qualified individuals that bring unique knowledge, skills, and experience to the committee. Expertise in environmental

The President will appoint these members for fourteen-year terms, to be removed from the committee only on good cause.⁴⁸⁴ Congress will stagger the initial termination dates of each

issues is not a prerequisite for selection. Some members may have superior abilities in financial, industrial, scientific, and legal matters, for example, all of which will be vital to the effective operation of the committee.

See also *infra* note 545 and accompanying text (discussing the importance of appointing members from each environmental region, to ensure that each geographical area--that is, the states--has proper representation on the committee).

The President also will appoint a Chairman and a Vice-Chairman, by and with the advice and consent of the Senate, for a total of 12 members on the NEC. The Chairman and Vice-Chairman will serve for four years each. See, e.g., 12 U.S.C. § 242.

⁴⁸⁴ See *id.* (appointing Federal Reserve Board members for 14 years); *id.* § 242 (provision for removing a member of the Federal Reserve Board for cause by the President). Removing a member only on "good cause" will help ensure that the committee is free from political pressures--a factor that is fundamental to its effective operation.

Once a member's term has expired, that member "shall not be eligible for reappointment as such member after he [or she] shall have served a full term of fourteen years." *Id.* The President will appoint new members in the same manner that he appointed original members. The President also will have the authority to fill vacancies during a recess of the Senate, just as President Clinton did recently with the new Chairman of the CEQ. See *Senate Environment Panel Holds Hearing, Delays Vote on McGinty to Chair CEQ*, Nat'l Env't Daily (BNA), Sept. 28, 1995, at 1 (indicating that President Clinton appointed Katie McGinty as the new CEQ Chair during a recess of Congress. She was subsequently confirmed during the next session of Congress). The member's "term" will expire at the beginning of the next session of Congress, pending confirmation by the Senate.

If a member vacates a position prior to the expiration of that member's term, the President shall appoint a successor, by and with the advice and consent of the Senate, to fill the position for the unexpired term of his predecessor. See 12 U.S.C. § 244. That new member may be reappointed by the President to a full 14-year position.

member so that no two members vacate positions within the same calendar year.⁴⁸⁵

The NEC will be located in Washington, D.C., in close proximity to the EPA and the CEQ.⁴⁸⁶ Congress must encourage a strong working relationship with these, and other federal agencies. However, Congress must grant the NEC authority over such federal agencies to facilitate the committee's use of their resources. This will enhance the NEC's ability to accomplish its stated objectives.⁴⁸⁷ The committee will also receive support from a Washington, D.C. staff--the chairman

⁴⁸⁵ The President will stagger appointments so that one member's term expires on January 31 of each calendar year. This measure is designed to lessen the affect of members leaving the NEC, and to limit the power that the President has to effect a change on the committee through the appointment of new members. The NEC has more members than the Federal Reserve Board to provide for both greater representation from the regions (representing states' interests) and to lessen the impact of new appointees.

See, e.g., 12 U.S.C § 242 ("Upon the expiration of the term of any appointive member . . . the President shall fix the term of the successor to such member at not to exceed fourteen years, as designated by the President at the time of nomination, but in such manner as to provide for the expiration of the term of not more than one member in any two-year period.").

⁴⁸⁶ See, e.g., *id.* §§ 243, 244 (indicating that the Federal Reserve Board would acquire a location in the District of Columbia "suitable and adequate . . . for the performance of its functions"). I envision regular contact with the EPA, CEQ, and other principal environmental officials within the administration, as well as frequent meetings with the President.

⁴⁸⁷ The NEC must have the power to coordinate the activities of other federal agencies concerning the clean-up process at federal facilities.

will determine the specific number⁴⁸⁸--to assist in meeting these objectives.

As with any other executive agency, Congress will monitor the progress of the NEC. To facilitate this objective, Congress will require the NEC to file an annual report,⁴⁸⁹ and the General Accounting Office (GAO) will conduct regular reviews of the committee's activities. The NEC always will be subject to change through the legislative process.⁴⁹⁰ Although its goal will be to further the nation's restoration

⁴⁸⁸ The Federal Reserve Board has a staff of 1700. I envision a *much* smaller staff for the NEC, especially in this era of "rego," or reinventing government on a much smaller, less-expensive scale. See *supra* note 70. The staff will be comprised of individuals knowledgeable in the various areas over which the committee will exercise control. Examples include such diverse areas as: water, air, and surface pollution; hazardous, toxic, and radioactive wastes; unexploded ordnance; health and safety issues; legislation; law; economics/finance; and science. Thus, the staff will assist the NEC in a manner similar to how the Science Advisory Board (SAB) aids the EPA.

⁴⁸⁹ See, e.g., 42 U.S.C. § 247 (reports to Congress). The NEC must forward the report to the Speaker of the House, who will publish it for the entire Congress. Committee members often will be asked to testify before Congress on issues that the committee is, or will be, addressing.

⁴⁹⁰ The NEC will owe its mandate and existence to Congress. However, with members appointed by the President for 14-year terms, only to be removed on good cause, Congress will have to abolish the committee or legislate away its powers to effect it. Moreover, Congress must ensure that compelling reasons exist to support any changes that it makes to the committee.

I envision the NEC working like a mutual fund. Congress may experience highs and lows with the committee, but must have faith that in the long term it will receive a substantial return on its investment.

objectives at federal facilities,⁴⁹¹ it must operate with the other branches of government to accomplish this task.⁴⁹² However, this requirement to function with the other branches must be balanced against the NEC's freedom from economic and political pressures. Such freedom is only one of the many advantages that the NEC affords to the federal facility clean-up process.

B. The Positive Aspects of the NEC

The NEC possesses many positive attributes, some of which are not present with state, EPA, or joint control of cleanups at federal facilities. These attributes include prestige, power, insulation, independence, and experience.⁴⁹³

⁴⁹¹ It will accomplish this by achieving its primary goal of establishing an effective system by which federal facilities will conduct cleanups of contaminated sites.

⁴⁹² The NEC must follow the Federal Reserve Board's lead. The Board has established a working relationship with the executive branch and "works according to the objectives of economic and financial policy established by the executive branch." FEDERAL RESERVE BOARD (FRB), FEDERAL RESERVE SYSTEM, PURPOSES AND FUNCTIONS BOOKLET 3 (8th ed. 1994) [hereinafter PURPOSES AND FUNCTIONS].

⁴⁹³ See BREYER, *supra* note 33, at 59-61 (Justice Breyer states that his small, centralized, administrative group must have five characteristics or features--(1) a specified risk-related mission; (2) interagency jurisdiction; (3) political insulation; (4) prestige; and (5) authority). Some of these features apply to the NEC as well. As such, with proper acknowledgment, I adopt some of Justice Breyer's explanations of these features.

1. *Prestige*⁴⁹⁴--The NEC must have prestige to be effective. The committee will acquire it by two separate methods. First, prestige will arise out of the qualifications possessed by the President's appointees. Individuals deemed accomplished in the diverse areas in which the committee will function, although not necessarily "experts," will lend much credibility to actions that the NEC takes. Second, over time, the NEC will acquire prestige through decisions that are effective in solving the problems that presently plague federal facilities. The public will come to accept its decisions as well-reasoned, objective, and authoritative.⁴⁹⁵

2. *Power*⁴⁹⁶--The committee's power is directly connected to its prestige. Any committee of this nature must have the ability to take actions it deems necessary to attain the desired results. The NEC will derive this power from a number of different sources. For example, Congress could legislatively grant the NEC the authority to implement its

⁴⁹⁴ *Id.* at 61.

⁴⁹⁵ *Id.* (indicating that "prestige must both attract, and arise out of an ability to attract, a highly capable staff"). Justice Breyer also notes that "[i]nsofar as a systemic solution produces technically better results, the decision will become somewhat more legitimate, and thereby earn the regulator a small amount of prestige, which may mean an added small amount of public confidence." *Id.* at 63.

⁴⁹⁶ *Id.* at 62-63.

decisions.⁴⁹⁷ Moreover, the prestige of the committee--based on its members' qualifications and its overall effectiveness--will provide it with additional power to administer its decisions. A reputation for sound decision making will only increase the committee's power.⁴⁹⁸

3. *Insulation and Independence*⁴⁹⁹--To be effective, such a

⁴⁹⁷ Congress must grant the NEC the same powers that it provided to the Federal Reserve Board. "The Federal Reserve is sometimes considered a fourth branch of the U.S. government because it is made up of a powerful group of national policymakers freed from the usual restrictions of governmental checks and balances." PURPOSES AND FUNCTIONS, *supra* note 492, at 3.

⁴⁹⁸ The Federal Reserve Board provides an excellent example of this occurrence. The board is considered

a known quantity as a bank regulator. It has a record of accomplishment, a distinguished tradition, and a reputation for integrity and thoughtful decision-making. The fact that the Congress has repeatedly seen fit to assign the Board of Governors the task of developing industry-wide regulations in the increasingly important consumer protection area must mean that the Congress, if not the country at large, has confidence in the Board's objectivity and judgment.

Statements to Congress, 62 FED. RESERVE BULL. 323, 323 (Apr. 1976) (statement by Arthur F. Burns, Chairman, Board of Governors of the Federal Reserve System, before the Subcommittee on Financial Institutions Supervision, Regulation, and Insurance of the Committee on Banking, Currency, and Housing, United States House of Representatives on March 18, 1976); see BREYER, *supra* note 33, at 61-63.

⁴⁹⁹ By independence, I mean that "its decisions do not have to be ratified by the President or anyone else in the executive branch," or by Congress or the states. PURPOSES AND FUNCTIONS, *supra* note 492, at 8. The NEC must operate "within the framework of the overall objectives of . . . government." *Id.* As such, it actually will work "independent within the government." *Id.*

committee must remain relatively free from economic and political pressures. It cannot operate any other way.⁵⁰⁰ The NEC achieves this freedom from its design. Members appointed for fourteen-year terms, whom Congress and the President can remove only for good cause, possess the necessary "tenured" status.⁵⁰¹ The committee thus maintains a certain level of independence to make decisions that, although they might not be popular, will be successful over time.⁵⁰²

Nor is the committee subject to the same pressures that state regulators or the EPA experience. State regulators feel the economic pressure of home-town developers and the political pressure of state legislatures. The EPA is constantly pressured by Congress and the executive branch to

⁵⁰⁰ Federal Reserve Board Chairman Alan Greenspan characterized the Board as "resilient and useful," indicating that "in the past, the Congress has steadfastly supported the independence of the Federal Reserve. I can only encourage the Congress . . . to reaffirm this commitment." *Statements to Congress*, 75 FED. RESERVE BULL. 795, 807 (Dec. 1989) (statement before the subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance, and Urban Affairs, United States House of Representatives, Oct. 25, 1989). Congress must support the independence of the NEC as well.

⁵⁰¹ The NEC, like the Federal Reserve Board, will be "formally independent of the executive branch and protected by tenure well beyond that allotted to the President." *PURPOSES AND FUNCTIONS*, *supra* note 492, at 4. These provisions are intended to ensure that the members are insulated from day-to-day politics.

⁵⁰² See BREYER, *supra* note 33, at 63 ("Bureaucratic solutions, if sound and coherent, resting on well-constructed comparisons . . . offer administrators the promise of a modest increase in independence, through greater insulation from public criticism of individual decisions.").

conduct faster and more cost-effective cleanups. And, of course, every member of Congress wants these cleanups performed in their jurisdiction first. The NEC's decision making must be devoid of similar influences to be the valuable decision-making body that I envision.

4. *Experience*⁵⁰³--A group such as the NEC joins highly qualified individuals in the pursuit of what is basically one goal--expedient, cost-effective clean ups of federal facility NPL sites. Each member initially brings his or her own experience and expertise to the committee. Thereafter, the committee gains additional experience and expertise through working on one specific set of issues over an extended period of time. Moreover, as the NEC's level of experience and expertise increases, so, too, will its prestige and power to implement its decisions.

5. *Summary*--Listed above are the positive aspects of a committee such as the NEC. These qualities will enable it to bring about many changes in the current clean-up process that the states, EPA, or both could not. Such changes inevitably will improve the overall cost, speed, and quality of cleanups at federal facility NPL sites. Part VI.C discusses changes that the NEC must implement, the effect of these changes, and any specific grants of power that Congress must make to the

⁵⁰³ *Id.* at 62.

NEC to allow it to make such changes.

C. Specific Changes That the NEC Must Make

Creating a group like the NEC provides an opportunity to make improvements in the clean-up process like those detailed in the following sections. Congress has considered some, but not all, of these revisions in recent proposed legislation, but has failed to adopt any of the measures.⁵⁰⁴ Accordingly, although I advocate that the NEC modify only the current federal facility NPL site clean-up process, I recognize that some of these changes apply to the clean-up process at the remaining sites as well. Congress must adopt those recommended reforms that will streamline the clean-up process at the remaining sites.

Why, then, do we need the NEC? Because some of my recommendations for change are either unique to a group such as the NEC, or are more easily implemented by such a group, as the following sections demonstrate.

1. National Risk-Based Prioritization--The NEC, by using

⁵⁰⁴ See Superfund Reform Act, H.R. 3800, 103d Cong., 2d Sess. 1 (1994) [hereinafter H.R. 3800]; see also David Hosansky, *Superfund Bill's Supporters Look to Next Congress*, 52 CONG. Q. 2865, 2865-66 (1994).

a system similar to the Defense Priority Model (DPM),⁵⁰⁵ will be able to prioritize federal facility sites on a national level. The committee will assess the relative risk of each site,⁵⁰⁶ rank order them according to that risk,⁵⁰⁷ and clean the sites on a "worst-first" basis.⁵⁰⁸ Consequently, the most

⁵⁰⁵ See *supra* notes 420-22 and accompanying text (describing the DPM). The NEC's system will provide greater benefits than the EPA's Hazard Ranking System (HRS) because it will incorporate the results of the remedial investigation (RI) into its assessment of the site's risk.

⁵⁰⁶ In assessing the relative risk, the NEC will use a given set of criteria. It will consider, among other things, the threat posed to the community's health and to the environment, taking into account the anticipated future use of the land. See *infra* notes 532-39 (discussing consideration of future land use).

⁵⁰⁷ The NEC will develop the equivalent of the Federal Facilities Hazardous Waste Compliance Docket. The NEC's docket will list all federal facility NPL sites. The NEC will then rank them according to the risk that they pose.

⁵⁰⁸ The NEC will not prioritize BRAC sites appearing on the NPL on this basis. The "worst first" basis will only apply to active installations, which receive clean-up funding from the DERA. There is growing support for addressing sites at closing facilities on a "best-first" basis. This would allow sites requiring less treatment to be cleaned up and transferred for private use as quickly as possible. One commentator explained as follows:

[The] DOD, EPA, and the states should be directed to make "best first" their priority in all remedial work at closing bases. More parcels of land would be sold sooner, increasing revenue flow to DOD and facilitating wider redevelopment options. "Best first" priorities are also critically needed to allow effective interim leasing before land sale.

Raymond Takashi Swenson, *A Modest Proposal: Reforming Base Reuse Law*, 6 FED. FACILITIES ENVTL. J. 11, 12 (Summer 1995). This is an excellent illustration of one of the advantages that the NEC provides--*flexibility*. The committee possesses the ability to comprehensively analyze these types of issues to arrive at sound, well-informed decisions, and has the

heavily contaminated sites will receive increasingly scarce environmental restoration dollars first. Such centralized priority setting avoids the problems associated with each of the fifty states requiring federal facilities to clean its sites first. The NEC will also work closely with federal facilities and community working groups (CWG)⁵⁰⁹ to set priorities on a site-by-site basis so that the most pressing work at each site will be accomplished with the resources that are immediately available.⁵¹⁰

2. *National Clean-Up Standards*--The NEC must develop national clean-up standards for use at all federal facility NPL sites. Clean-up standards, and the remedy selected to meet those standards, represent the core of the clean-up process at any site. Consequently, the clean-up standards

flexibility to redirect resources to these "best" sites if its analysis indicates that such action is warranted.

⁵⁰⁹ See *infra* notes 540-44 and accompanying text (discussing Community Working Groups and state and local involvement).

⁵¹⁰ A concern exists that setting national priorities and cleaning on a "worst first" basis, will result in misallocating vital clean-up dollars to remediate all contaminated sites at facilities listed on the NPL. Some of the many sites at these facilities have only small amounts of contamination. See *supra* note 364 and accompanying text (discussing "fenceline-to-fenceline" listing on the NPL). Thus, the belief is that scarce funds should not be spent on cleaning up these slightly-contaminated sites. Prioritizing at each facility removes the potential for imprudent spending of limited funds, by identifying the most heavily contaminated sites at each facility, which the NEC will then consider when ranking sites in order of need.

that the NEC establishes, and the remedies it selects--more than any other tasks that it performs--will determine the success of the clean up.⁵¹¹

By "success of the cleanup" I mean *protecting human health and the environment in the most timely and cost-effective manner possible*. Yet this definition begs the question of what level of cleanup protects human health and the environment.⁵¹² At what level must federal facilities set clean-up standards to provide such protection? The definition also sidesteps the issue of when a cleanup is no longer timely or cost effective.⁵¹³

⁵¹¹ See Henley, *supra* note 74, at 24-25.

⁵¹² See *Federalism and Hazardous Waste*, *supra* note 4, at 1518-19 & n.13 & 16 (citing PAUL A. LOCKE, ENVTL. L. INST., RES. BRIEF NO. 4, REORIENTING RISK ASSESSMENT 7-8 (1994); EPA, UNFINISHED BUSINESS: A COMPARATIVE ASSESSMENT OF ENVIRONMENTAL PROBLEMS--OVERVIEW REPORT xv, 95, 96 (Feb. 1987)) (indicating that the EPA announced several years ago that it spends a disproportionate amount on hazardous wastes compared to other known risks--pesticides in food, air pollution, ozone depletion). The article suggests that because of the "popular conception that exposure to hazardous waste is one of the worst fates that one might suffer," that as a nation we have gone too far in attempting to shield ourselves from all possible exposure. *Id.* at 1518. Clean-up standards become extremely stringent, almost to the point of absurdity. The need for such stringent clean-up standards and remedies must be re-evaluated, especially when the benefits are compared to the costs. The article points out that "[m]ost people are routinely exposed to potentially toxic and carcinogenic substances as they gas up their cars, clean their houses, refinish their furniture, and engage in countless other day-to-day activities." *Id.* at n.13.

⁵¹³ One commentator explains cost effectiveness as follows: One remedial option may cost \$20 million and provide X level of protection. A second option costs \$40 million and

The current process--mandated by the CERCLA--of allowing state and local governments to require that federal facilities include ARARs (federal, state, and local standards) in site-specific clean-up standards causes significant problems. Federal facilities must often clean sites to meet unnecessary standards and address speculative risks,⁵¹⁴ which only delays the cleanup and increases its costs. Why must federal facilities do this? Simply because states and localities want their sites completely clean and their requirements are "applicable or relevant and appropriate." As such, they become binding on federal facility cleanups. When federal agencies disagree with these requirements, disputes arise over what standards are appropriate and the process stalls.

To avoid these disputes, I propose that the NEC develop

provides 3X level of protection. A final option costs \$400 million and provides only 4X level of protection. Do you need that extra level of protection in light of the added cost? Which remedy do you select? See ARBUCKLE, *supra* note 49, at 86; Henley, *supra* note 74, at 25.

The problem lies in the changes that the SARA made to the CERCLA. The SARA indicated a preference for permanent solutions and imposed the ARARs process on federal facility cleanups. See *supra* notes 206-12 and accompanying text. Although the SARA was designed to address the issue of "How clean is clean?"--that is, define clean-up standards--the result was more burdensome standards, more expensive cleanups and, quite possibly, no additional protection at many sites.

⁵¹⁴ See Henley, *supra* note 74, at 25 & n.230 (citing U.S. OFFICE OF TECHNOLOGY ASSESSMENT, COMING CLEAN: SUPERFUND PROBLEMS CAN BE SOLVED 3 (Oct. 1993)) (indicating that the "U.S. Office of Technology Assessment has estimated that about 50% of cleanups address speculative risks, which preempt spending to identify and reduce current risks at other sites").

standards that will govern cleanups at all federal facility NPL sites. Remedies will not be allowed to exceed certain minimum levels of contamination.⁵¹⁵ Minimum quantities help "guarantee a minimum level of environmental protection to citizens regardless of their place of residence"⁵¹⁶ (at least as far as federal facility Superfund sites are concerned). These new standards will also bring much desired consistency and uniformity to the clean-up process, resulting in consistent quality at federal facility NPL sites nationwide.

By implementing uniform standards for all of these sites, the NEC will avoid the ARARs process completely. As such, the NEC will avoid the delays, and related costs associated with "selecting, negotiating, and disputing individual sets of

⁵¹⁵ For example, Congress considered a specific reform in recent legislation concerning the development of "National Applicable Requirements" (NARs) (the alternative to ARARs). The proposal requires the development of "one single numerical cleanup level for each of the 100 contaminants most often found at Superfund sites." Hanash, *supra* note 18, at 116-17; H.R. 3800, *supra* note 504, at 45. The goal of these standards would be to prevent unreasonable risks.

⁵¹⁶ Percival, *supra* note 24, at 1171-72 (indicating further that "in a nation with high population mobility, federal minimum standards help guarantee that citizens can travel freely without encountering unreasonable risks to their health or welfare from environmental conditions"). The passage cites to a recent article relating that "more than 21 million Americans moved from one state to another between 1985 and 1990," and that "less than 62% of the U.S. population resided in the state in which they were born" as of 1990. *Id.* at n.145 (citing JOHN J. DI IULIO, JR. & DONALD F. KETTLE, FINE PRINT: THE CONTRACT WITH AMERICA, DEVOLUTION, AND THE ADMINISTRATIVE REALITIES OF AMERICAN FEDERALISM 6 (1995)).

ARARs for each and every cleanup site."⁵¹⁷ Instead of spending countless years and billions of dollars investigating, debating, and then litigating the appropriate standards,⁵¹⁸ uniform clean-up standards will expedite both the assessment/investigative phase and the remedy selection process.⁵¹⁹ This will allow federal facilities to begin timely clean ups of dangerous sites.

3. *Remedy Selection*--The NEC will incorporate presumptive remedies, *real* risk-assessment, cost-effectiveness, and future land use into remedy selection. Federal facilities, as lead agencies in the clean-up process at their sites, will be charged with developing appropriate remedies and presenting them to the committee. The NEC will grant final approval.

The current remedy selection process, as previously mentioned, is ineffective. The CERCLA's preference for permanent remedies⁵²⁰ typically results in remedies that are

⁵¹⁷ Hanash, *supra* note 18, at 117.

⁵¹⁸ This is precisely what federal facilities have done at many sites, to include the TCAAP and the Rocky Mountain Arsenal. See *supra* note 29.

⁵¹⁹ Establishing national standards makes remedy selection much less complicated, as long as these national standards are "reasonably clear and objective." *Federalism and Hazardous Waste*, *supra* note 4, at 1537. Federal facilities will no longer have to contend with inconsistent and often unattainable standards at every site.

⁵²⁰ 42 U.S.C. § 9621.

inappropriate for the clean up of a site.⁵²¹ Conversely, the NEC will possess the flexibility to adopt creative and innovative techniques that are less expensive and time consuming, but do not pose a threat to human health.⁵²²

a. *Presumptive Remedies*--The NEC will adopt presumptive (or generic) remedies for use at federal facility cleanups.⁵²³ Presumptive remedies are nothing other than "cleanup methods or technologies that have proven successful in the past and can be used to remediate the same type of contamination at other . . . locations."⁵²⁴ Although under the current process a tremendous effort goes into determining the proper remedy for a site, studies show that the same remedies are used for certain types of sites over and over again.⁵²⁵ Use of presumptive remedies obviously has the potential to streamline remedy selection and expedite the clean-up process.

⁵²¹ For example, the EPA may impose stringent clean-up standards and require permanent remedies designed to clean landfills to residential use standards.

⁵²² See Henley, *supra* note 74, at 34. The NEC will consider such alternative remedies as interim/long-term containment with interim/long-term monitoring, which are much less expensive than permanent treatment options.

⁵²³ The DOD is attempting to use presumptive remedies now. Wegman & Bailey, *supra* note 2, at 897 & n.185 (citing *Hearings Before the Defense Subcomm. of the House Appropriations Comm.*, 103d Cong., 2d Sess. 4 (1994) (statement of Sherri Wasserman Goodman, DUSD(ES))).

⁵²⁴ Hanash, *supra* note 18, at 117.

⁵²⁵ Henley, *supra* note 74, at 44.

The NEC will facilitate this by becoming a clearinghouse for techniques that facilities have successfully applied at contaminated sites.⁵²⁶ The NEC will monitor the progress of various techniques to determine what *works best* and identify such remedies for future use.

b. *Risk Assessment and Cost-effectiveness*--The current process requires that risk assessment be conducted at a site to guarantee that the selected remedy "protects human health and the environment."⁵²⁷ The NCP requires regulators to assess the risks posed by contaminants at a site. They accomplish this by assessing the toxicity of the contaminants and the amount of human exposure to them. By failing to consider the *actual* future use of the land,⁵²⁸ however, regulators assess the risks of exposure much higher than they actually are. This results in more stringent standards and more costly, time-consuming remedies. The NEC must consider the real risk posed by contaminants at the site, by

⁵²⁶ A common criticism of the current process is that no centralized database exists from which federal facilities can review the success of various technologies to assist in selecting an appropriate remedy.

⁵²⁷ 42 U.S.C. § 9621(b)(1). See 40 C.F.R. § 300.430(d)(4).

⁵²⁸ See *infra* notes 532-39 and accompanying text. The current process requires an assumption that the future use of the land will be residential. Estimates as to human exposure to the contaminants will be higher. However, this often fails to accurately assess the actual likelihood of exposure. See also Henley, *supra* note 74, at 41.

considering the actual future use of the land. This will allow it to properly assess the risk of exposure. National clean-up standards will then be applied, and a remedy selected based on actual risks.

Moreover, the NEC will clarify the discrepancy between the RCRA and the CERCLA as to consideration of the cost-effectiveness of a remedy. The recent legislation considered by Congress indicated that cost effectiveness must be taken into account in the remedy selection process.⁵²⁹ This does not mean that the NEC will consider the cost of a remedy, but the cost benefit of a remedy. It is worth the extra money to clean up the last ten percent of contamination at a site? What risks does the last ten percent pose compared to the amount of money necessary to clean it up? As one commentator noted, "Measuring benefits . . . would also help calibrate cleanup costs more closely to real health benefits, avoid extravagant cleanups of properties posing little likelihood of human exposure, and conserve resources for the cleanup of sites truly raising health concerns."⁵³⁰ In short, the NEC would look for the least expensive remedy that provided the required protection to human health and the environment.

c. *Future Land Use*--The last, but certainly not the

⁵²⁹ H.R. 3800, *supra* note 504, at 49-51.

⁵³⁰ Henley, *supra* note 74, at 43.

least, consideration that the NEC will incorporate into remedy selection is the reasonably anticipated future use of the land.⁵³¹ Most commentators see this as the most important consideration, indicating that the future use of a site "must control the decisions for selection of a remedy."⁵³²

Currently, regulators frequently require that sites be cleaned to unnecessarily high standards. They normally assume that, after cleanup, the site will be used for residential purposes, and must be cleaned to residential use standards. Why? Arguably, because as long as federal facilities are paying for the clean up, states will demand that their sites be returned to pristine conditions. The EPA follows the CERCLA's preference for permanent remedies, and requires such remedies to meet the most stringent standards for protection of human health and the environment.⁵³³ In the revised National Contingency Plan (NCP)⁵³⁴ the EPA actually included "an assumption that the future use of a hazardous waste site

⁵³¹ The 103d Congress considered the future land use issue in the recent Superfund reform legislation. H.R. 3800, *supra* note 504, at 49.

⁵³² Henley, *supra* note 74, at 37. "It is land use which must drive risk assessment and cleanup standards must be shaped to match intended use. . . . assumptions about future use must dominate risk assessment and cleanup target determinations." *Id.* at 37-38.

⁵³³ 42 U.S.C. § 9621.

⁵³⁴ 40 C.F.R. § 300; see *supra* notes 136 & 260 (discussing the NCP).

would be residential."⁵³⁵

Requiring that all sites be cleaned to residential use standards is illogical. It is simply a lingering result of the context in which Congress enacted the CERCLA.⁵³⁶ Even Congress must now recognize that the additional time and resources allocated to a cleanup under the "residential use assumption," when the anticipated or actual future land use is not residential, are unwarranted.⁵³⁷ Human health and the environment recognize no increased benefit, and the resources wasted on the additional clean-up measures could, and should, be reallocated to other work.⁵³⁸

Taking future land use into account in selecting a remedy will make that process less onerous on federal facilities. It will undoubtedly improve the cost effectiveness of the clean-

⁵³⁵ Wegman & Bailey, *supra* note 2, at 892.

⁵³⁶ See *supra* notes 174-79 and accompanying text.

⁵³⁷ Senator Barbara Boxer (D-CA) recently criticized the application of the "residential use assumption." She questioned the logic, as many before and after her have, of cleaning up facilities that will subsequently be used for industrial purposes to "a level that would allow children playing in a sandbox "to eat the sand." Hanash, *supra* note 18, at 116.

⁵³⁸ The "EPA has told Congress that this conservative [remedy selection] approach may "significantly increase the costs of cleanup without commensurate benefits." Wegman & Bailey, *supra* note 2, at 892 & n.157 (citing *Hearings Before the Subcomm. on Trans. & Hazardous Materials of the House Comm. on Energy & Commerce*, 103d Cong., 1st Sess. 30 (1993) (testimony of Robert Sussman, Deputy Administrator, EPA)).

up process significantly. Finally, it will expedite the overall process, allowing the contaminated property to be transferred more quickly to viable economic use.⁵³⁹

D. Potential Concerns

One potential objection to creating the NEC is that by granting control to a "national" administrative agency, Congress will limit state and local community involvement in the clean-up process. The initial response to this objection is that the NEC's primary purpose is to avoid the problems associated with involving multiple state and federal agencies in clean-up determinations. Full state and local participation in clean-up decisionmaking will lead to the same confusion, conflict, and delay that the process is now experiencing, for all of the reasons previously set forth.⁵⁴⁰

⁵³⁹ Caution must be exercised when determining the future land use of a site for this very reason. The community that will receive the property once the cleanup is complete has an incentive to indicate that the future land use will be anything other than residential. As such, they receive the property more quickly. However, circumstances may change over time causing the community to want to use the land for residential purposes.

To avoid this occurrence, the NEC will coordinate with Community Working Groups, who will assist the NEC in determining the actual future land use. These determinations will subsequently be incorporated into deed restrictions, covenants, or zoning ordinances that will restrict the future use of the land. See Henley, *supra* note 74, at 33-34; Wegman & Bailey, *supra* note 2, at 893-94.

⁵⁴⁰ See *supra* notes 434-49 and accompanying text (analyzing increased state involvement in cleanups at federal

The alternative is to incorporate state and local concerns into the process through other means. Congress has recently considered establishing CWGs,⁵⁴¹ local panels that would replace entities like the Restoration Advisory Boards (RAB) previously used by the DOD. Such groups will serve as the primary vehicle for providing community input into decisions regarding cleanup. I envision a similar entity at each federal facility site, especially the larger, multibillion dollar cleanups, where local expertise on a wide variety of issues will be necessary. The groups will be comprised of a diverse, but relatively small, number of members, based in large part on the size of the cleanup.⁵⁴²

The NEC will establish these groups at the beginning of the clean-up process and allow for their complete involvement in all phases of the cleanup. The assistance that these groups can provide is unlimited and invaluable, especially on facilities).

⁵⁴¹ H.R. 3800, *supra* note 504, at 5-9.

⁵⁴² No more than 25 members should be necessary. The NEC will select these members from lists provided to it by the federal facility that is the subject of the cleanup. Local residents may volunteer for a position or be recommended by state and/or local officials. Senior representatives from the federal facility will attend the meetings and coordinate with the group, but will not take part in any of the group's decisions. The group will forward its nonbinding recommendations to the NEC. See Nicholas I. Morgan, *FFERDC Interim Report Sets Landmark Approach for Federal Facility Cleanup*, 4 FED. FACILITIES ENVTL. J. 121, 127-28 (Summer 1993) (discussing the Federal Facilities Environmental Restoration Dialogue Committee's Keystone Report).

the critical issue of future land use recommendations.⁵⁴³ The groups will provide the NEC with "direct, regular, and meaningful consultation with all interested parties."⁵⁴⁴

A second method of incorporating regional, state, and local concerns into clean-up decisions is through the selection of NEC members based on geographical regions. Such selections must "have a due regard for geographical divisions of the country."⁵⁴⁵ Members will, to a certain extent, represent the interests of the geographical region from which they were appointed by the President.

Finally, as the NEC begins to effectively promote the clean up of federal facilities, the public's confidence in the committee will increase. A corresponding decrease will occur in the public's desire for input into, much less control over, the clean-up process. It is logical that the public will not clamor for change in a system that works well. States and local communities want input and control because the current clean-up system at federal facilities is "broken." This ineffectiveness is due in large part to the regulatory gridlock that hobbles the clean-up process. Remedy the gridlock and the system becomes more effective. Once it is

⁵⁴³ H.R. 3800, *supra* note 504, at 5.

⁵⁴⁴ *Id.* at 6.

⁵⁴⁵ *See supra* note 483.

effective, the public's need for involvement will diminish. Justice Breyer explains this concept well:

Trust in institutions arises not simply as a result of openness in government, responses to local interest groups, or priorities emphasized in the press--though these attitudes and actions play an important role--but also from those institutions' doing a difficult job well. A Socratic notion of virtue--the teachers teaching well, the students learning well, the judges judging well, and the health regulators more effectively bringing about better health--must be central in any effort to create the politics of trust.⁵⁴⁶

VII. Conclusion

It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something.

--Franklin Delano Roosevelt⁵⁴⁷

⁵⁴⁶ BREYER, *supra* note 33, at 81.

⁵⁴⁷ Franklin D. Roosevelt, *Address at Oglethorpe University*, in John Bartlett, *Familiar Quotations* 970 (14th ed. 1968), quoted in BREYER, *supra* note 33, at 79.

A. *The Challenge and the Response*

Federal agencies face what could be their greatest battle as they confront the environmental contamination present at facilities nationwide.⁵⁴⁸ Unfortunately, the current system fails to give these agencies the necessary resources, or the authority, to fight this battle. The current statutory scheme is ineffective, as it creates overlapping regulatory authorities at federal facility NPL sites. The result is unnecessary disputes, extra work, increased delays, and added costs and frustration. Considering the recent reductions in funding for federal facility environmental restoration programs, clean-up length and costs are headed in the wrong direction.⁵⁴⁹ Instead of maintaining a system that produces unwanted results, all parties must seek more timely and cost-efficient methods of completing these cleanups.

Congress must create an administrative body that is free from the gridlock caused by the interface of these two statutes. It must provide this group with the authority to take the necessary measures to bring about the desired

⁵⁴⁸ See *House Armed Services Comm. 1991 Hearings*, *supra* note 2, at 194 (indicating that the Pentagon referred to toxic cleanups at federal facilities as its "largest challenge").

⁵⁴⁹ See *supra* notes 19-20 (discussing the slow pace and exorbitant costs of current cleanups); see also *supra* notes 275-303 and accompanying text (discussing funding reductions in federal facility environmental restoration programs).

results. The NEC represents such an administrative body, possessing the potential to manage the clean-up process at federal facility NPL sites to a successful conclusion.

B. The Future

I recognize that my proposal is not complete and that it likely will remain incomplete for many years. Perhaps Alan Greenspan, Chairman of the Federal Reserve Board, stated it best when he indicated that "[t]he Federal Reserve as it stands today is the result of many years of informed discussion and refinement; that need not imply that its structure is the best of all possible structures. But it is one that works. It is a system in which the various parts mesh, and the job gets done."⁵⁵⁰

Admittedly, this is what I sought in this article--to shed light on, or at the very least, stimulate discussion about, what "system" or "structure" *works well* in facilitating timely and cost-effective cleanups at federal facility NPL sites.⁵⁵¹

⁵⁵⁰ *Statements to Congress*, 78 FED. RESERVE BULL. 795, 798 (Dec. 1989) (no. 12) (statement by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System, before the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs, United States House of Representatives, Oct. 25, 1989).

⁵⁵¹ Success in facilitating such cleanups will allow for the transfer of more resources to nonfederal facility NPL sites and all non-NPL sites. Moreover, if the NEC is successful with its initial task, no reason exists to limit its application to just federal facility NPL sites. Congress could expand the committee's control to a larger section of

I was driven only by a desire to discover a solution that ensured that "the job gets done"--not by a prejudice against state control of, or expanded involvement in, the clean-up process nor a bias in favor of federal facility control.⁵⁵² I concluded that the problem lies in overlapping regulatory authorities. Thus, any proposed solution that removes this overlap (e.g., placing authority in one entity) will provide better results than the present system. The NEC provides benefits above and beyond its exercise of sole authority over the cleanups due to its prestige, insulation, and ability to effectively implement a rational series of changes to the current system.

Over the years, those involved in the clean-up process have gained a wealth of experience in protecting human health and the environment.⁵⁵³ The NEC must apply this experience by implementing valuable changes, all aimed at spending limited clean-up dollars prudently. I certainly am not advocating

the contaminated sites.

⁵⁵² Hopefully, my solution will not be cast aside as one that emanated from a bias in favor of federal facilities. I recognize the contributions that state and local governments have made, and the opportunities that their involvement represents. However, I also recognize that over 15 years of Superfund operations have demonstrated that having more than one entity in control of the cleanups leads to inconsistent and ineffective results. I truly believe that all parties will benefit from creating such a committee, through the prompt and efficient remediation of these dangerous sites.

⁵⁵³ See Henley, *supra* note 74, at 45.

greater spending, just "smarter" spending. The NEC must prioritize sites properly to ensure that the money goes where it is needed most. It must develop national clean-up standards for federal facility NPL sites. Such standards will replace the current ARARs process, which is overly burdensome and leads to inconsistent clean-up standards and results. These new standards will streamline the entire clean-up process, from site assessment through remediation.⁵⁵⁴ They will simplify the assessment phase by providing specific guidance on when a cleanup is necessary.⁵⁵⁵ Remedy selection becomes less complicated because the level of cleanup required is more easily identified.⁵⁵⁶

The NEC also must incorporate real risk assessment into the remedy selection process. Assessing the risk posed by a site based on the actual future land use, instead of faulty assumptions that end up requiring more stringent standards and excessive remedies, will result in the selection of more appropriate remedies. The NEC also must consider the cost-effectiveness of a proposed remedy--seeking the least expensive remedy that affords the necessary protection to human health. Finally, the NEC must incorporate less costly alternatives into the remedy selection process through the use

⁵⁵⁴ *Id.*

⁵⁵⁵ *Id.*

⁵⁵⁶ *Id.*

of presumptive remedies.

Federal agencies face a stern challenge in attempting to clean up the contamination at federal facilities caused by years of neglect. Current methods designed to meet this challenge are incapable of doing so. The NEC provides an opportunity to avoid the problems that the current clean-up system presents and to make real progress in remediating sites. The committee's experience, credibility, prestige, and power will only increase over time as the public begins to recognize the advantages it provides. Any concerns that the NEC initially causes will slowly dissipate as public recognition of its effectiveness grows. I anticipate that the NEC will evolve over time, as did the Federal Reserve Board. Refinements are acceptable, even expected. Ultimately, the NEC may not be perfect, but at least FDR would be pleased that we are determined to "try something." Let the clean ups begin!

APPENDIX A

A BILL

To Amend Section 9620 of Title 42, United States Code
(the Comprehensive Environmental Response, Compensation
and Liability Act of 1980 (CERCLA)),
to create a National Environmental Committee.

SUBCHAPTER I--HAZARDOUS SUBSTANCES RELEASES, LIABILITY,
COMPENSATION

*Be it enacted by the Senate and House of Representatives of
the United States of America in Congress assembled,*

SECTION 1. SHORT TITLE

This Act may be cited as the "National Environmental Act of
1996."

SECTION 2. NATIONAL ENVIRONMENTAL COMMITTEE

(a) *In General*--Section 9620 of Title 42 of the United States
Code is amended by adding the following new paragraph:

§ 9620(k). NATIONAL ENVIRONMENTAL COMMITTEE

(1) To establish a more effective supervision of the restoration process at facilities owned or operated by a department, agency, or instrumentality of the United States (federal facility sites) included on the National Priorities List, upon the effective date of this Act, the President shall appoint a National Environmental Committee.

(2) The National Environmental Committee shall exercise complete authority over all federal facility sites included on the National Priorities List.

(3) The National Environmental Committee shall be composed of twelve members, to be appointed by the President, by and with the advice and consent of the Senate, after _____, 1996, for terms of fourteen years.

(4) Each appointive member shall continue to serve until January 31, 1997, at which time one member's term will expire. Thereafter, the term of one member per year will expire, so that no more than one member's term expires within the same one-year period. The President may reappoint, for a full fourteen-year term, any member who does not complete a full term. The President shall also appoint a successor to any member whose term expires, and shall appoint this new member for a period not to exceed fourteen years.

(5) In appointing members to the committee, the President shall have due regard to a fair representation of the financial, environmental, agricultural, industrial, and commercial interests, and geographical divisions of the country. The President shall select no more than one member from any one Environmental Protection Agency region, of which there are currently ten.

(6) The President shall also appoint a Chairman and a Vice-Chairman, by and with the advice and consent of the Senate. The Chairman and Vice-Chairman will serve four-year terms each. The President may reappoint any Chairman or Vice-Chairman for one four-year term each.

(7) Members of the committee may only be removed from the committee for good cause by the President.

(8) Section 9620(i) shall not apply to federal facility sites included on the National Priorities List. Section 9620(a)(4) shall apply only to those federal facility sites not included on the National Priorities List.

SECTION 3. EFFECTIVE DATE

The amendments made by this section (9620(k)) shall take effect on _____, 1996.

APPENDIX B

FREQUENTLY USED ENVIRONMENTAL LAW ACRONYMS

AP - Accumulation Points

ARAR - Applicable or Relevant and Appropriate Requirements

ATSDR - Agency for Toxic Substances and Disease Registry

BCA - Base Closure Account

BNA - Bureau of National Affairs

BRAC - Base Realignment and Closure (Commission/Act)

CAA - Clean Air Act (1955)

CBO - Congressional Budget Office

CEQ - Council on Environmental Quality

CERCLA - Comprehensive Environmental Response, Compensation &
Liability Act (1980)

CERCLIS - Comprehensive Environmental Response, Compensation &
Liability Information System

CESQG - Conditionally Exempt Small Quantity Generator

CFR - Code of Federal Regulations

COE - U.S. Army Corps of Engineers

CWA - Clean Water Act (1972)

CWG - Community Working Groups

DERA - Defense Environmental Restoration Account

DERP - Defense Environmental Restoration Program

DESR - Defense Environmental Status Report

DHS - Department of Health and Human Services

DOE - Department of Energy

DOD - Department of Defense

DOI - Department of Interior

DPM - Defense Priority Model

DRMO - Defense Reutilization and Marketing Office

DSMOA - Defense & State Memorandum of Agreement

DUSD - Deputy Under Secretary of Defense (Environmental
Security) (ES)

EIRP - Environmental Impact Review Program

EIS - Environmental Impact Statement

EMF - Environmental Management Fund (DOE)

EPA - Environmental Protection Agency

EPCRA - Emergency Planning and Community Right-to-Know Act
(1986)

ERRIS - Emergency & Remedial Response Information System

ESA - Endangered Species Act (1973)

ESC - Endangered Species Committee

FDA - Food & Drug Administration

FFCA - Federal Facilities Compliance Act (1992)

FFERDC - Federal Facilities Environmental Restoration
Dialogue Committee

FFHWCD - Federal Facilities Hazardous Waste Compliance Docket

FEPCA - Federal Environmental Pesticide Control Act

FIFRA - Federal Insecticide, Fungicide, and Rodenticide
Act (1947)

FONSI - Finding of No Significant Impact

FUDS - Formerly Used Defense Sites
 FWPCA - Federal Water Pollution Control Act/Agency (1952)
 FY - Fiscal Year
 GAO - General Accounting Office
 HEW - Department of Health, Education, and Welfare
 HRS - Hazardous Ranking System
 HSWA - Hazardous and Solid Waste Amendments (1984)
 HWCD - Hazardous Waste Compliance Docket
 IAG - Inter-Agency Agreement
 IG - Inspector General
 IRP - Installation Restoration Program
 NAR - National Applicable Requirements
 NASA - National Aeronautics & Space Administration
 NAPCA - National Air Pollution Control Administration
 NCP - National Contingency Plan
 NCSC - National Conference of State Legislatures
 NEPA - National Environmental Policy Act (1969)
 NMFS - National Marine Fisheries Service
 NOAA - National Oceanic and Atmospheric Administration
 NOHSPCP - National Oil and Hazardous Substances Pollution
 Contingency Plan (otherwise known as the NCP)
 NOV - Notice of Violation
 NPDES - National Pollutant Discharge Elimination System
 NPL - National Priorities List
 OEP - Office of Environmental Policy
 OHW - Other Hazardous Waste (Program)

O&M - Operations & Maintenance (Funds)
 OMB - Office of Management & Budget
 OTA - Office of Technology Assessment
 OSHA - Occupational Safety and Health Act/Administration
 PA/SI - Preliminary Assessment/Site Investigation
 PCB - Polychlorinated Biphenyls
 POTW - Publicly Owned Treatment Works
 PRP - Potentially Responsible Party
 QOL - Quality of Life (Funds)
 RAP - Remedial Action Plan
 RCRA - Resource Conservation and Recovery Act (1976)
 RD/RA - Remedial Design/Remedial Action
 RDT&E - Research, Development, Testing, & Evaluation
 RFA - RCRA Facility Assessment (like a PA/SI)
 RI/FS - Remedial Investigation/Feasibility Study
 ROD - Record of Decision
 RPM - Remedial Project Manager
 RT&E - Research, Testing & Development (Funds)
 SAPs - Satellite Accumulation Point
 SARA - Superfund Amendments and Reauthorization Act (1986)
 SDWA - Safe Drinking Water Act (1974)
 SQG - Small Quantity Generator
 SRA - Superfund Reform Act (Bill)
 Super- - Comprehensive Environmental Response, Compensation
 fund & Liability Act (1980)
 SWMU - Solid Waste Management Unit

SWDA - Solid Waste Disposal Act (1965)
TCAAP - Twin Cities Army Ammunition Plant
TRC - Technical Review Committee
TSCA - Toxic Substances Control Act (1976)
TSD - Treatment, Storage and Disposal
TSDF - Treatment, Storage and Disposal Facility
USAEC - United States Army Environmental Center
USDA - United States Department of Agriculture
USELD - United States Army Environmental Law Division
USFWS - United States Fish and Wildlife Service
UST - Underground Storage Tanks

APPENDIX C

THE RESOURCE CONSERVATION AND RECOVERY ACT OF 1976

SUBCHAPTER

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APPENDIX D
FEDERAL FACILITIES SPENDING ON
ENVIRONMENTAL RESTORATION ¹

(DOLLARS IN BILLIONS)

	DOE	DOD	DOI	USDA	NASA
Number of Sites:	10,000	21,425	26,000	3000	730
Estimated	\$250-\$350	\$26.2	\$3.9-\$8.2	\$2.5	\$1.5-\$2.0
Estimated Years to Complete:	30-75	20	NA	50	25
Fiscal Year 1995 Enacted Budget:	\$5.9	\$2.0	\$0.065	\$0.016	\$0.02
Fiscal Year 1996 Budget Request:	\$6.6	\$2.1	\$0.066	\$0.045	\$0.037

¹ *Top Officials Call For Cleanup Reforms*, 6 DEF. CLEANUP 41 (Oct. 20, 1995) (citing a report released by the Federal Facilities Policy Group, an interagency panel appointed by President Clinton in 1993 and chaired by Alice Rivlin, Director of the Office of Management & Budget, and Katie McGinty, Director of the Council on Environmental Quality).